

# UrQMD v2.3 - Changes and Comparisons

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The new version of the Ultra-relativistic Quantum Molecular Dynamics model (UrQMD-2.3) is presented. The Ultra-relativistic Quantum Molecular Dynamics model (UrQMD) is a microscopic many body approach to pp, pA and AA interactions at relativistic energies. The major updates and changes are explained and a comparison to the previous version (UrQMD-1.3p1) in the context of the available data is performed. The plots and numerical data tables for hadron (i.e.  $\pi$ , K, p,  $\bar{p}$ ,  $\Lambda$ ,  $\bar{\Lambda}$ ,  $\Xi$ ,  $\bar{\Xi}$ ,  $\Omega$ ,  $\bar{\Omega}$ ) multiplicities, and mean transverse mass momenta,  $\langle m_T \rangle - m_0$  excitation functions, transverse mass spectra and rapidity distributions in pp and central Au+Au/Pb+Pb reactions from  $E_{\text{lab}} = 2A$  GeV to  $\sqrt{s_{\text{NN}}} = 200$  GeV are provided in this paper. The source code of UrQMD-2.3 is available at [www.th.physik.uni-frankfurt.de/~urqmd](http://www.th.physik.uni-frankfurt.de/~urqmd).

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## I. INTRODUCTION

The Ultra-relativistic Quantum Molecular Dynamics model (UrQMD) [1, 2] is a microscopic many body approach and can be applied to study hadron-hadron, hadron-nucleus and heavy ion reactions from  $E_{\text{lab}} = 100A$  MeV to  $\sqrt{s_{\text{NN}}} = 200$  GeV. This microscopic transport approach is based on the covariant propagation of color strings, constituent quarks and diquarks (as string ends) accompanied by mesonic and baryonic degrees of freedom. It simulates multiple interactions of in-going and newly produced particles, the excitation

and fragmentation of colour strings and the formation and decay of hadronic resonances. Towards higher energies, the treatment of sub-hadronic degrees of freedom is of major importance. In the present model, these degrees of freedom enter via the introduction of a formation time for hadrons produced in the fragmentation of strings [3, 4, 5] and by hard (pQCD) scatterings via the PYTHIA model. A phase transition to a quark-gluon state is not incorporated explicitly into the model dynamics. Let us shortly review the major physics questions and topics in which UrQMD has been used in the past:

- The thermal properties of the UrQMD model have been investigated. It was shown that a detailed analysis of the model in equilibrium yields an effective equation of state of Hagedorn type [6, 7]. Further studies involve the exploration of the systems evolution in the QCD phase diagram and the equilibration time scales of QCD matter. This includes also studies on the active degrees of freedom and the relation between pressure and energy density (equation of state) [8, 9, 10, 11, 12, 13, 14, 15, 16].
- The UrQMD transport model has been successfully used to predict and interpret experimental data at various energies and for a multitude of observables and reaction systems, e.g. hadron yields, transverse and longitudinal spectra [17, 18, 19],
- strangeness production, multi-strange baryons and antiprotons [19, 20, 21, 22, 23],
- hadron resonance production e.g.  $K^*$ ,  $\rho$ ,  $\Lambda^*$ ,  $\Delta$  [24, 25, 26, 27, 28, 29],
- radial, directed and elliptic flow [30, 31, 32, 33, 34, 35, 36, 37, 38, 39],
- event-by-event fluctuations [40, 41, 42, 43, 44, 45, 46, 47, 48, 49],
- particle correlations and HBT [50, 51, 52, 53, 54, 55],
- real photon and dilepton production [56, 57, 58, 59, 60],
- Drell-Yan, charm, D-mesons and  $J/\Psi$  production and dynamics [61, 62, 63, 64, 65, 66, 67, 68] and
- studies at low beam energies to explore potential effects and isospin asymmetries [69, 70, 71, 72].

Furthermore, the UrQMD model has been used within various hybrid model studies ranging from air shower simulations [73, 74] to hybrid models for relativistic heavy ion reactions. Most noteworthy are the pioneering studies related to a coupling between UrQMD and hydrodynamics, see e.g. [75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85].

The aim of this article is to describe the major changes between the last publically available version UrQMD-1.3p1 and the present state-of-the-art version UrQMD-2.3 of the model and to compare the results of both versions to each other and to the available data. This paper is organized as follows: In Section II the inclusion of the Pythia model for (initial) hard scatterings is described. The new treatment of high mass resonance states is explained in Section III. In Section IV various small changes of lesser importance are described. Section V consists of the comparison of UrQMD results (from the two different versions) to the available experimental data. First, the multiplicities and  $\langle p_T \rangle$  excitation functions in elementary p-p collisions are shown for different particle species. Then, excitation functions of multiplicities and mean transverse momentum and transverse mass and rapidity spectra for Pb+Pb/Au+Au collisions in the whole energy range are investigated. All the figures are contained in the Appendix A. The numerical data for all figures are provided in Appendix B. Section VI summarizes the paper.

For further details concerning the implementation and the usage of the new version the reader is referred to the User Guide which is available on the UrQMD homepage.

## II. INCLUSION OF PYTHIA

To employ the UrQMD transport approach at higher energies (above  $\sqrt{s_{\text{NN}}} \cong 10$  GeV) it is important to treat the initial hard collisions carefully. Therefore, we have implemented the latest version (6.409) of Pythia [86] to perform those hard collisions instead of the normal UrQMD string excitation and fragmentation routine. Note that Pythia 6.4 is technically not anymore the latest version since there is a new C++ implementation (current version 8.1). However, Pythia 6.4 is the latest stable and full-featured Fortran implementation, which is still considered to be the benchmark for the physics processes.

The minimal center of mass energy in the individual two particle reactions for a Pythia call is  $\sqrt{s_{\text{min}}} = 10$  GeV (applicability limit of Pythia). Hard collisions are defined as collisions with momentum transfer  $Q > 1.5$  GeV. The transition between the low energy string

routine and Pythia is smooth and given by the probability distribution for hard scatterings determined from Pythia. The standard low energy string routine is called to perform the string excitation and fragmentation calculation for soft collisions only.

Leading particles produced by Pythia strings are treated in analogy to the leading particles created in the standard UrQMD string fragmentation procedure. Leading particles are the particles that contain the quarks or diquarks of the original hadrons. Those leading particles are allowed to interact with a fraction of one third, two third (for diquarks) or a half (for mesons) of their normal cross section during their formation time of  $\sim 1\text{fm}/c$ , while all the other newly produced particles do not interact until they are fully formed. To account for coherence effects the cross sections for leading particles from Pythia are additionally suppressed by a factor 0.4.

### III. TREATMENT OF HIGH MASS RESONANCES

In the previous version UrQMD-1.3p1 the resonances with masses up to 2.2 GeV are included with all their vacuum properties and decay dynamics. For processes at higher energies string excitation and fragmentation dominates the interaction in UrQMD-1-3p1. Since the angular distributions of the particles produced by strings are forward-backward peaked the resulting mean transverse momenta were found to be too low compared to experimental data. To reproduce the experimentally measured high  $\langle p_T \rangle$  values a modified treatment of high mass resonances similar to RQMD is introduced. This modified treatment of meson-baryon interactions in the intermediate energy regime is described in the following.

A continuous spectrum of high mass resonance states is included in the energy regime between  $\sqrt{s}_{coll} = 1.67\text{ GeV}$  and  $\sqrt{s}_{coll} = 3\text{ GeV}$  for meson-baryon reactions. These particle excitations are treated as pseudo-resonances instead of strings. Below  $\sqrt{s}_{coll} = 1.67\text{ GeV}$  normal resonance excitation takes place. Above  $\sqrt{s}_{coll} = 3\text{ GeV}$  the standard UrQMD string fragmentation is called. The properties for the unknown resonances are extrapolated from the in mass closest known resonance of same type.

To fix the strangeness production in the decay process of these new resonance states which was reduced because of the new production of high mass resonances instead of strings, the branching ratios of high lying resonances are changed to the corresponding branching ratios

obtained from string decays of the same mass. Further adjustments are made to keep the particle properties in line with the Particle Data Book 2006. All branching ratios and other resonance properties are within the limits of the Particle Data Book 2006.

#### IV. OTHER IMPORTANT CHANGES

The following list contains the most important smaller changes that have been implemented:

- New Regge-parametrisations for total and elastic cross-sections at high energies are implemented for all the elementary reactions for which they are available.
- The mass distribution of the nucleon resonances  $N^*$  has been fixed via inclusion of the  $\Delta$  resonances.
- Adjustment of the  $\Xi$  and  $\Omega$  production rates in p-p-collisions to newly available data via a change of the double strange diquark suppression factor.
- The single strange diquark suppression factor is set to 0.5 to reproduce the measured  $\bar{\Lambda}$  production in p-p collisions.
- A new subroutine which provides a faster initialization that is needed for cosmic air shower simulations is introduced.
- Changes that need to be made to run UrQMD at LHC energies have been studied. The necessary adjustments are described in detail in the User Guide, but are not implemented in the default version UrQMD-2.3.

#### V. COMPARISON TO DATA

In the following subsections the results of the new version UrQMD-2.3 are compared to the calculations using UrQMD-1.3p1 in the context of the available experimental data. We have concentrated on bulk observables like multiplicities and particle spectra to demonstrate the major differences. Here we refrain from explaining all the details of the shown figures, but concentrate on the effects of the changes that are described above. The full/dotted lines refer always to the UrQMD-2.3 (shown as full lines) and UrQMD-1.3p1 (shown as dotted

lines) results, while experimental data are depicted as symbols. All the figures are contained in the appendix A with an explanatory title, key and caption. Numerical data is given in Appendix B.

### A. p-p collisions

First we show the excitation functions of the total multiplicities and the mean transverse momentum for elementary p-p collisions. In Fig. 1 an enhanced production of pions, kaons and antiprotons due the implementation of Pythia is visible for energies above  $\sqrt{s_{\text{NN}}} \gtrsim 50$  GeV. The  $\bar{\Lambda}$  yield is reduced in UrQMD-2.3 and has been adjusted by the single strange diquark suppression factor. The  $\Omega$  yield is increased in UrQMD-2.3 and was adjusted by a change of the double strange diquark suppression factor. Preliminary NA49 data for  $\Xi$  and  $\Omega$  production in p-p was used to adjust the multiplicities.

Fig. 2 shows the  $\langle p_T \rangle$  of produced particles in p-p collisions. The inclusion of pQCD hard scatterings in UrQMD-2.3 leads to a slight increase of the  $\langle p_T \rangle$  at higher energies compared to UrQMD-1.3p1.

### B. A-A Collisions

In the following subsections the explanation of the changes on the results for heavy ion collisions (Au+Au/Pb+Pb) are given. All the calculations have been performed for central collisions ( $b < 3.4$  fm).

#### 1. Multiplicities and excitation functions

Fig. 3 shows the excitation function of  $4\pi$  multiplicities for different particle species. The yields of the (multi-)strange baryons has changed because of the new treatment of high mass resonances and the adjustments of the strangeness suppression factors. The same effect is also visible for the yields at midrapidity that are shown in Fig. 4.

In Figs. 5 and 6 the excitation functions of the mean transverse momentum and transverse mass for different particle species are shown. The new calculations with UrQMD-2.3 generally result in an increase in transverse momentum, resulting in a better description

of the experimental data. This increase is due to the modified treatment of the high mass resonances that decay isotropically.

## 2. *Transverse mass spectra*

Figs. 7,8,9 and 10 show differential transverse mass spectra for pions, kaons and protons in the whole energy regime from lower AGS to the highest RHIC energy. Overall, a flattening of the slopes of the spectra due to the higher mean transverse momenta is observed. This is again due to the new treatment of the high mass resonances.

## 3. *Rapidity spectra*

In this subsection rapidity spectra for  $\pi$ , K, p,  $\Lambda$ ,  $\Xi$ ,  $\Omega$  and their respective antiparticles are shown for beam energies from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV.

Fig. 11, 12 and 13 show the results for pions. The UrQMD-2.3 calculations lead to a lower pion yield which is in better agreement with the experimental data over the whole energy range. The shape of the distribution looks very similar to the observed one. Please note that at RHIC energies the pion yield at midrapidity differs between the different experiments.

The  $K^+$  distribution stays within 20% the same in both UrQMD versions (Fig. 14). Because of the replacement of string excitation with high mass resonances in the intermediate energy regime a slightly lower yield of the strange particles is observed in UrQMD-2.3. The effect of the further adjustments of the strangeness production, e.g. changes in the resonance cross sections and the strangeness suppression factors for the string dynamics, can be seen in Figs. 15,16,17,18,19,20 and 21.

The rapidity distributions of protons (see Fig. 22) shows peaks at high rapidities in both UrQMD calculations from the spectators which usually are not measured by the experiments, but end up in a veto calorimeter for the centrality selection. The protons are only weakly affected by the updates and changes in the new version. The shape of the distributions looks different in the experimental data compared to both UrQMD calculations. There are more antiprotons produced because of the inclusion of Pythia (see Fig. 23).

## VI. SUMMARY

The new version UrQMD-2.3 of the Ultra-relativistic Quantum Molecular Dynamics model was presented. The most important changes and updates with respect to the previous publically available version have been explained. To illustrate the results, a comparison of the particle spectra between the two versions has been shown in the context of the available data. We encourage all users to submit potential problems and bug reports to the following email address: bleicher@th.physik.uni-frankfurt.de.

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[arXiv:nucl-ex/0312023].

## **APPENDIX A: FIGURES**

Note that statistically insignificant (first low multiplicity) points have been removed from the plots, however are still present in the tables for completeness.

## UrQMD u2.3 vs. u1.3p1, pp

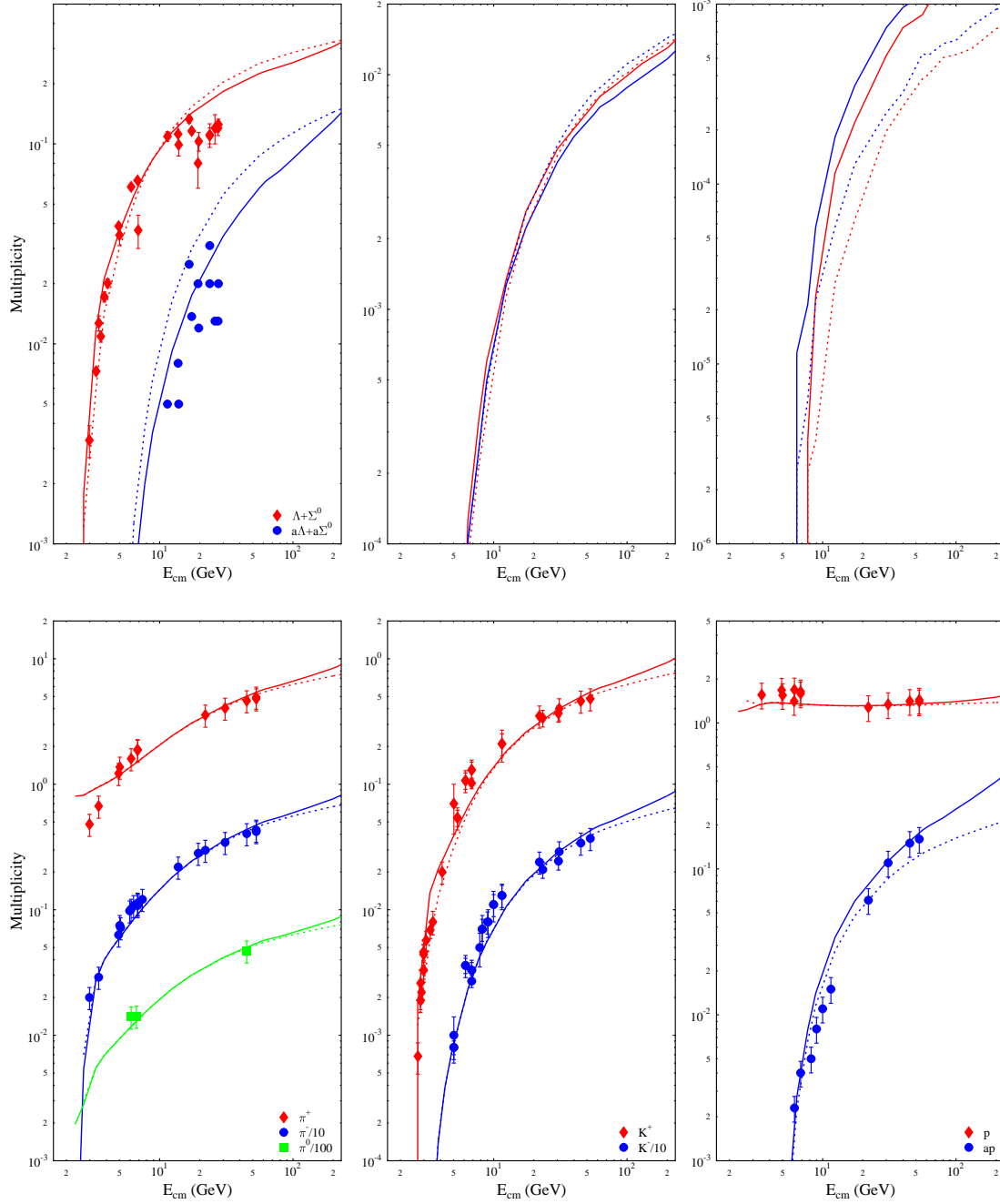


FIG. 1: (Color online) Excitation function of particle multiplicities ( $4\pi$ ) in inelastic pp collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [87, 88] are depicted with symbols.

## UrQMD u2.3 vs. u1.3p1, pp

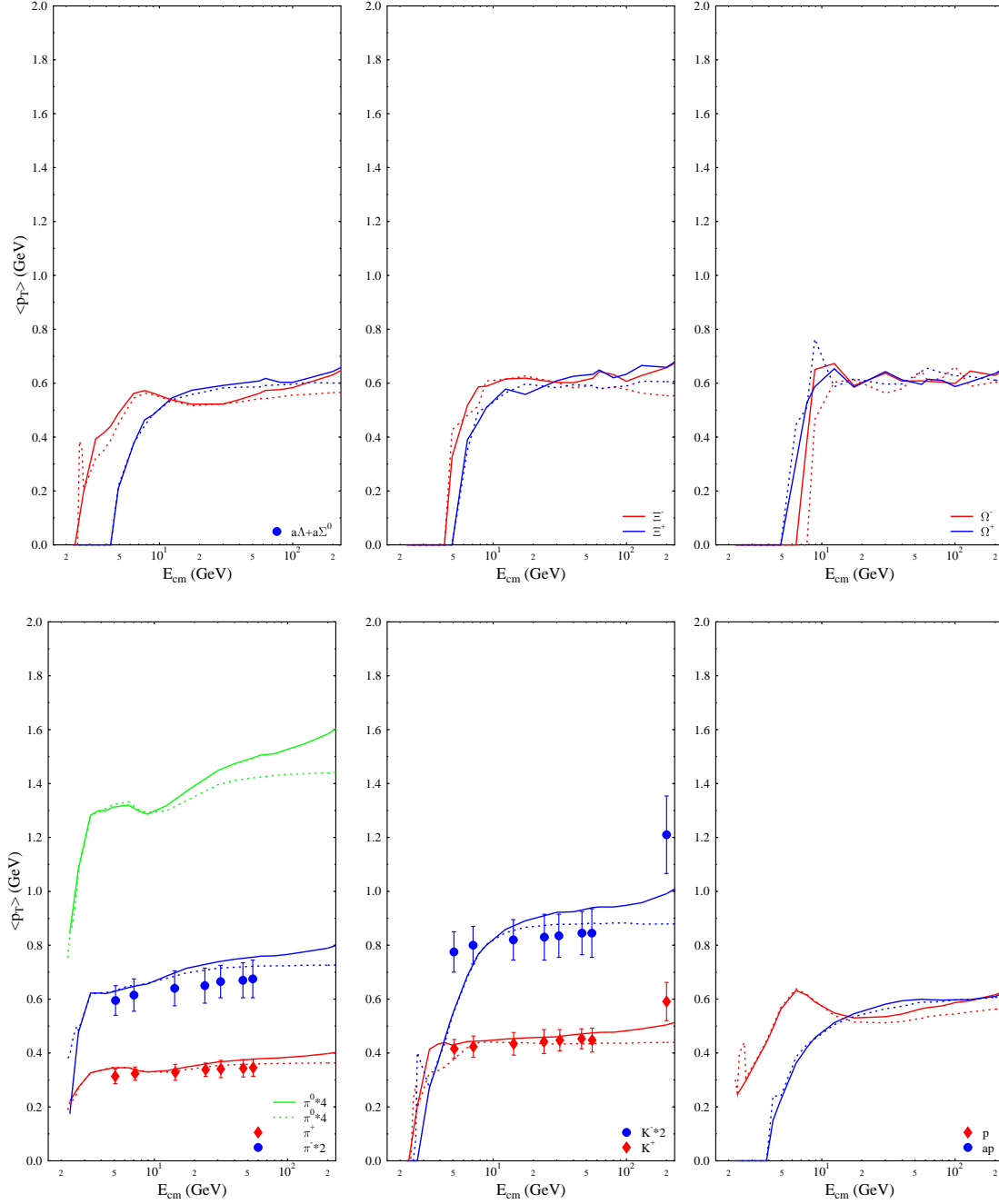


FIG. 2: (Color online) Excitation function of  $\langle p_T \rangle$  values for different particle species at midrapidity ( $|y| < 0.5$ ) in inelastic pp collisions from  $E_{lab} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [88] are depicted with symbols.



### UrQMD u2.3 vs. u1.3p1, Au+Au(Pb+Pb)

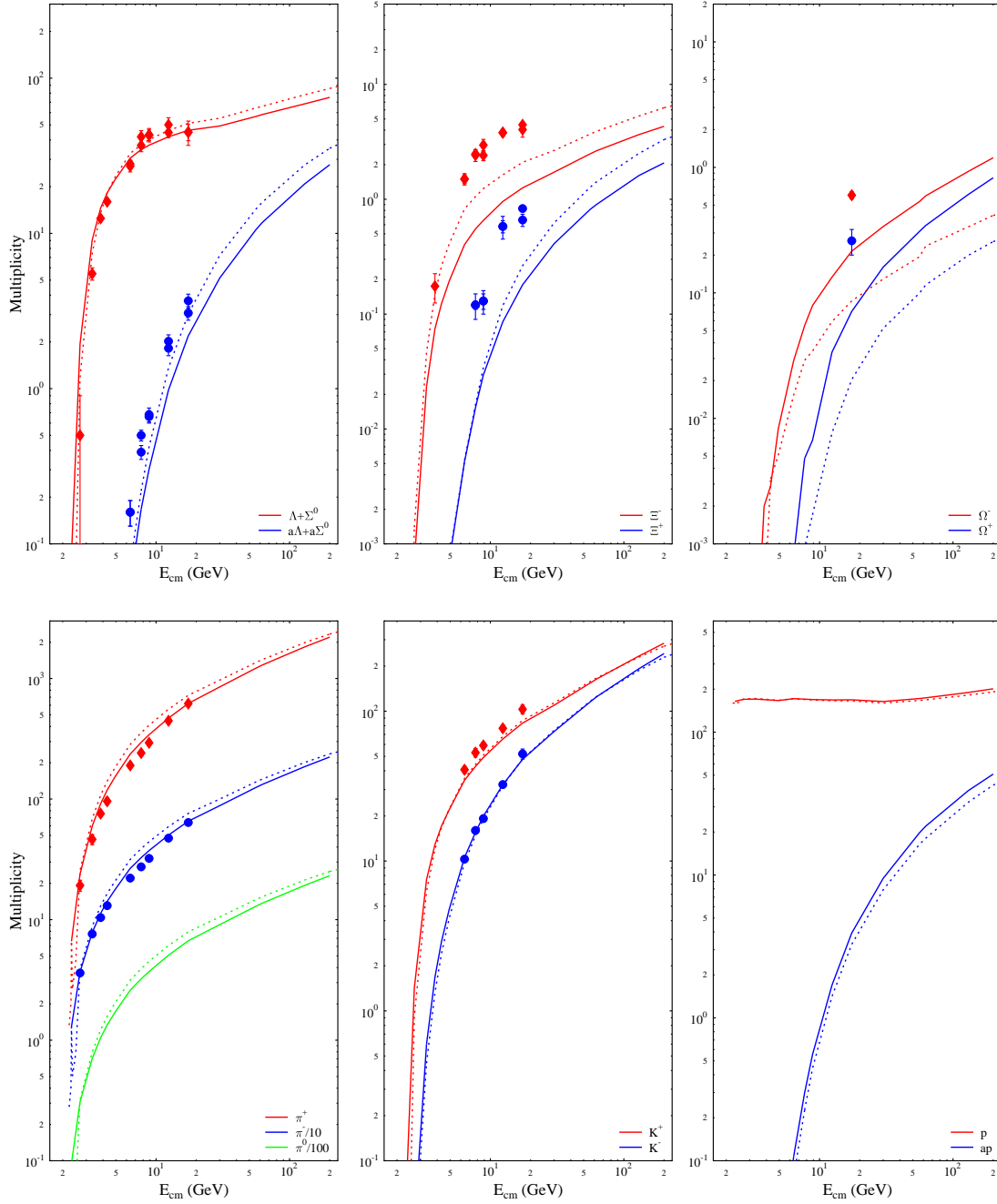


FIG. 3: (Color online) Excitation function of particle multiplicities ( $4\pi$ ) in Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100] are depicted with symbols.

### UrQMD u2.3 vs. u1.3p1, Au+Au(Pb+Pb)

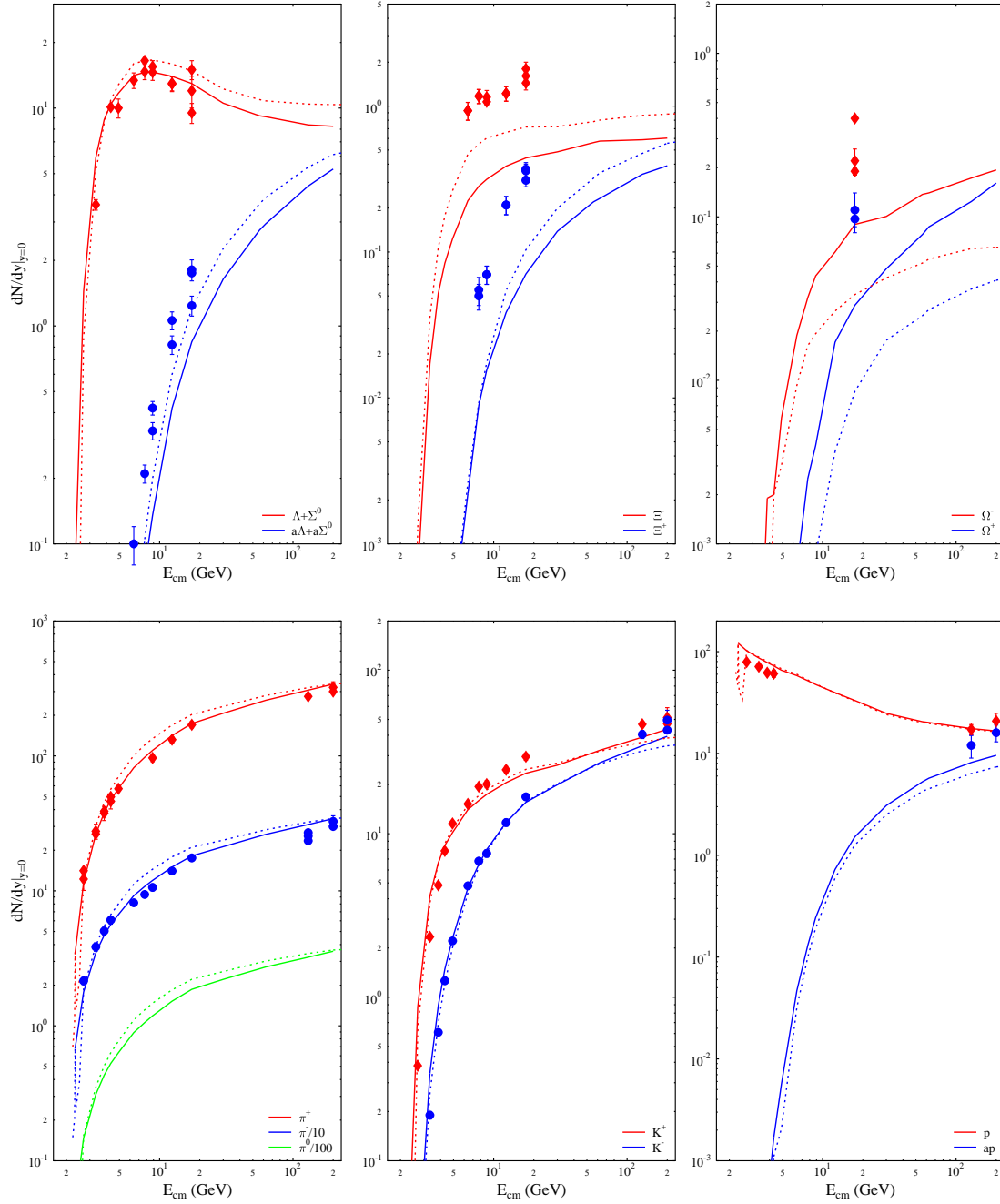


FIG. 4: (Color online) Excitation function of particle yields at midrapidity ( $|y| < 0.5$ ) in Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [89, 93, 96, 97, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109] are depicted with symbols.

# UrQMD u2.3 vs. u1.3p1, Au+Au(Pb+Pb)

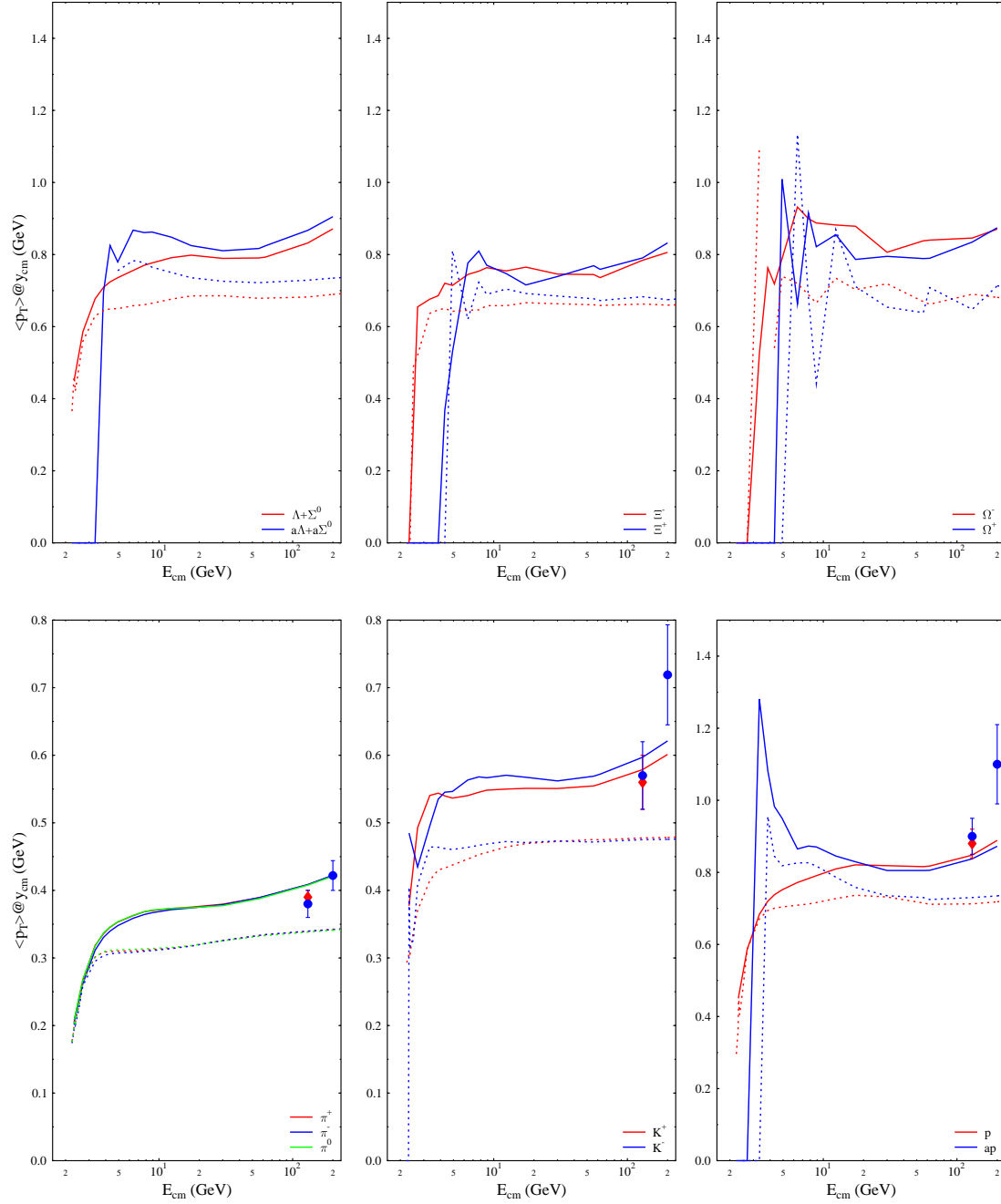


FIG. 5: (Color online) Excitation function of  $\langle p_T \rangle$  values for different particle species at midrapidity ( $|y| < 0.5$ ) in Au+Au/Pb+Pb collisions from  $E_{lab} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [102, 109] are depicted with symbols.

### UrQMD u2.3 vs. u1.3p1, Au+Au(Pb+Pb)

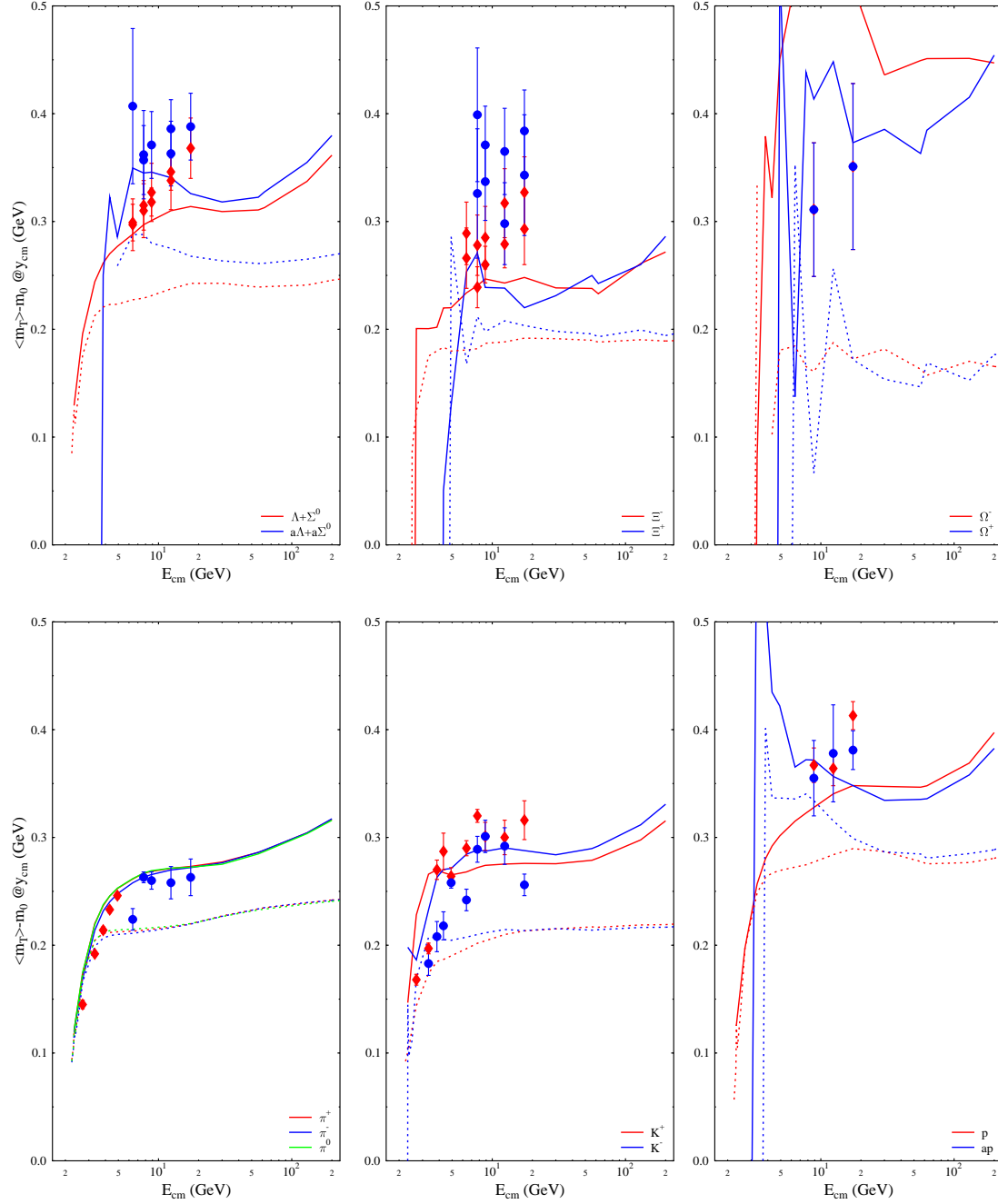


FIG. 6: (Color online) Excitation function of  $\langle m_T \rangle - m_0$  values for different particle species at midrapidity ( $|y| < 0.5$ ) in Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [92, 93, 94, 95, 96, 97, 99, 100, 101, 104, 110, 111, 112] are depicted with symbols.

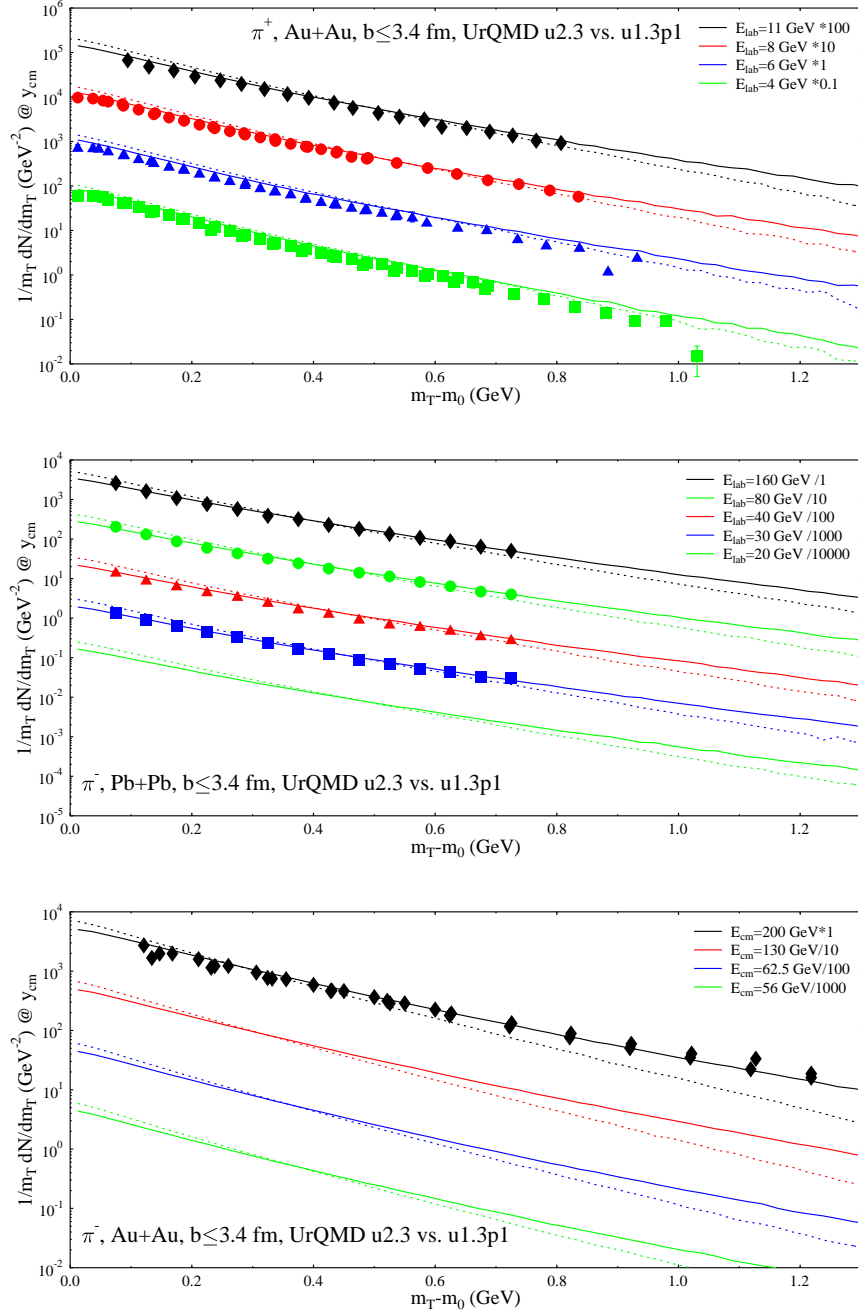


FIG. 7: (Color online) Transverse mass spectra of  $\pi^-$  ( $\pi^+$  for AGS energies) at midrapidity ( $|y| < 0.5$ ) for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [89, 92, 93, 109, 113, 114] are depicted with symbols.

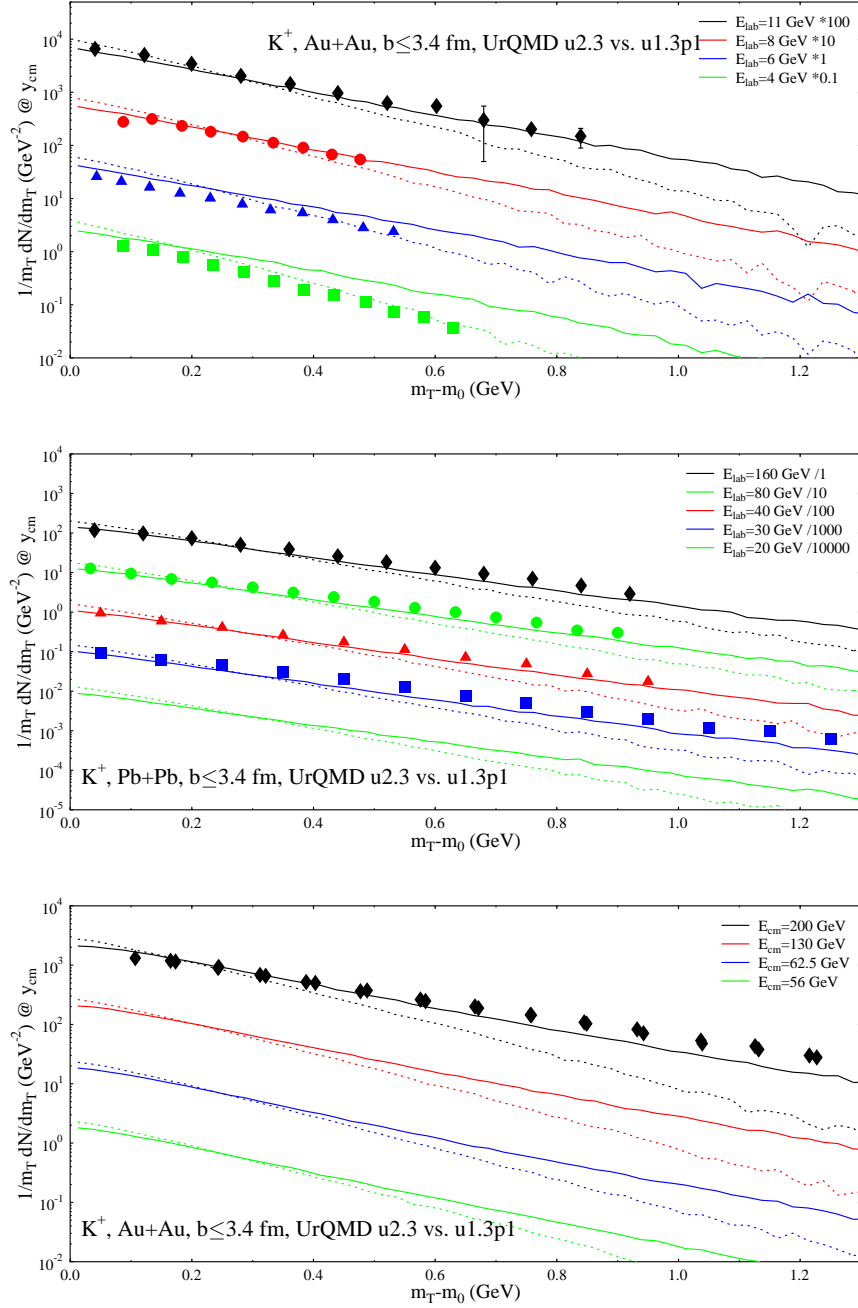


FIG. 8: (Color online) Transverse mass spectra of  $K^+$  at midrapidity ( $|y| < 0.5$ ) for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [92, 93, 104, 109, 113] are depicted with symbols.

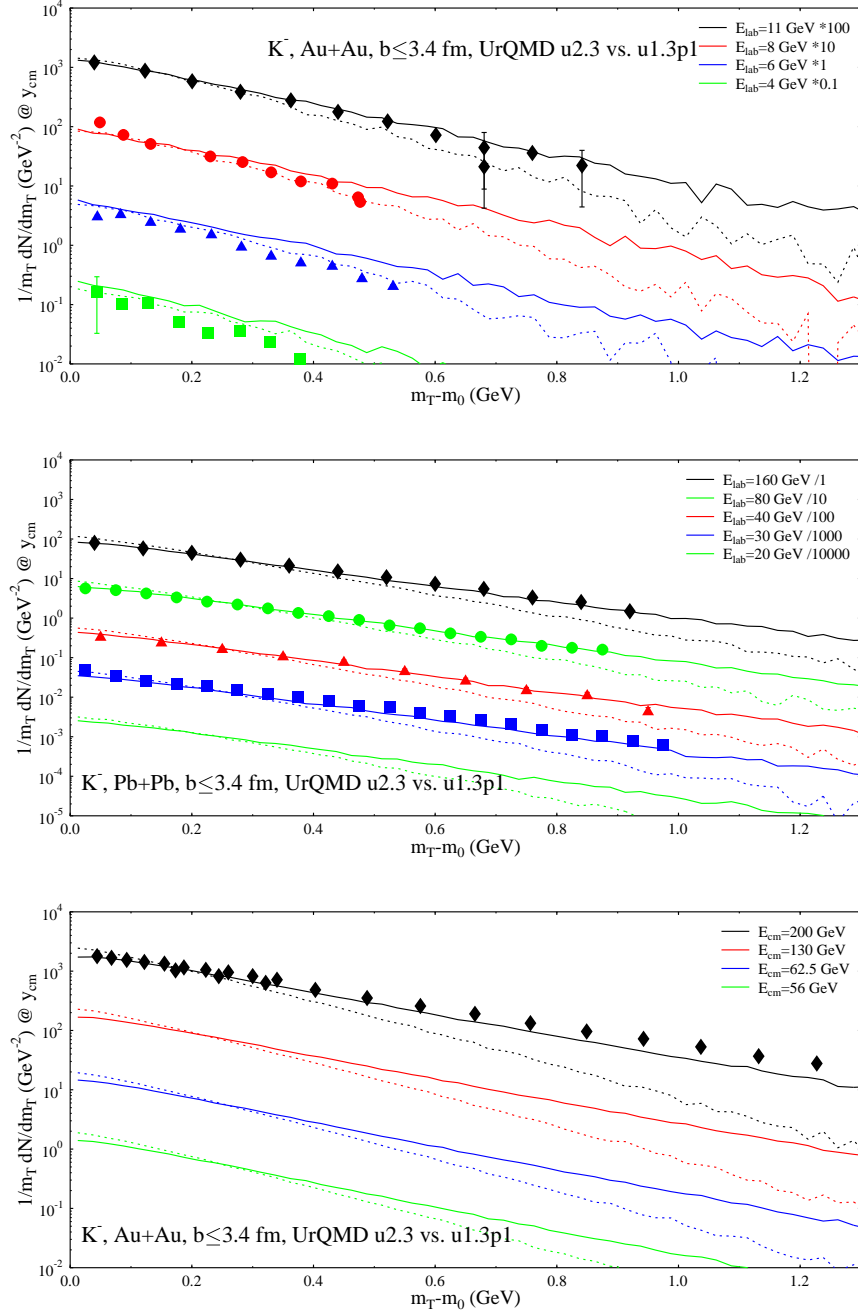


FIG. 9: (Color online) Transverse mass spectra of  $K^-$  at midrapidity ( $|y| < 0.5$ ) for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{lab} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [92, 93, 104, 109, 113] are depicted with symbols.

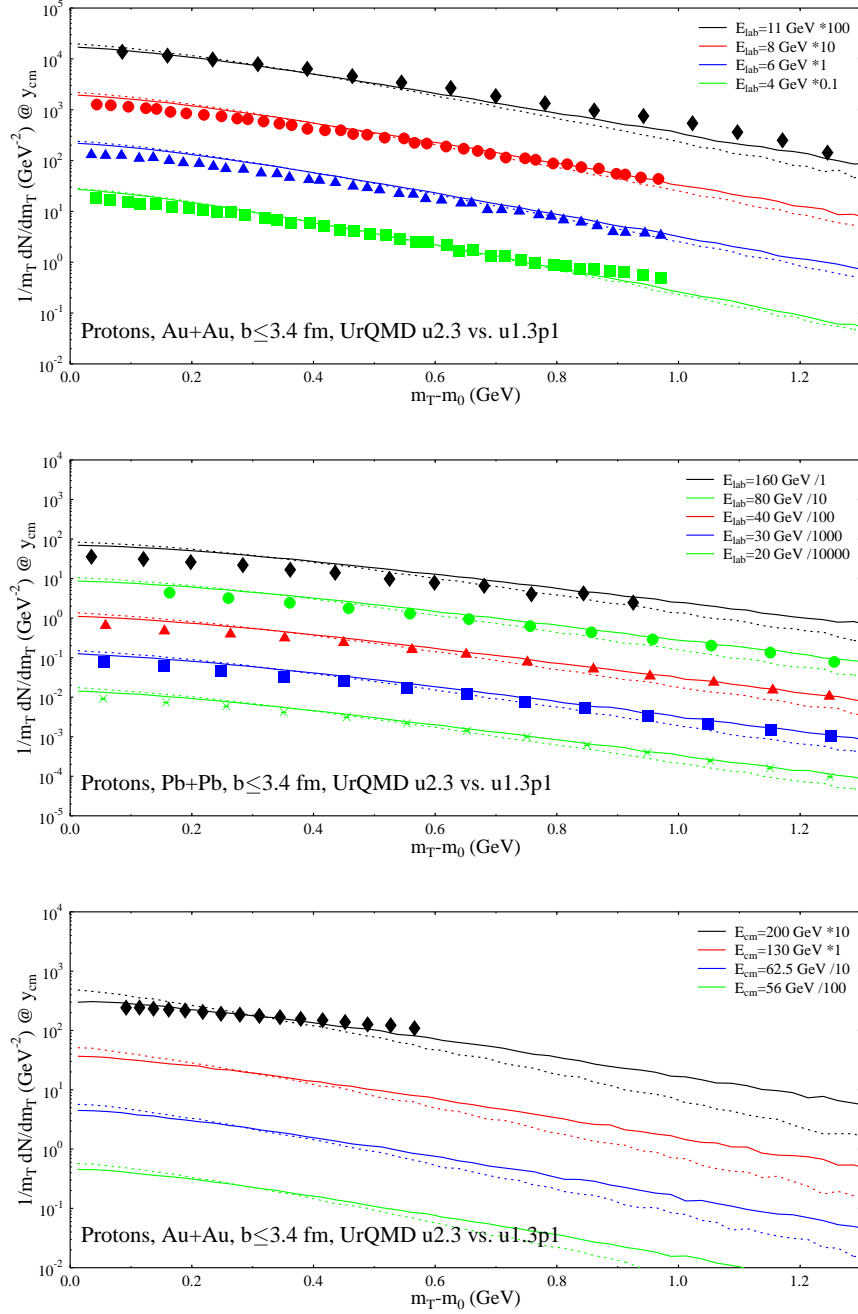


FIG. 10: (Color online) Transverse mass spectra of protons at midrapidity ( $|y| < 0.5$ ) for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{lab} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [109, 115, 116, 117] are depicted with symbols.



# UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, $\pi^+$

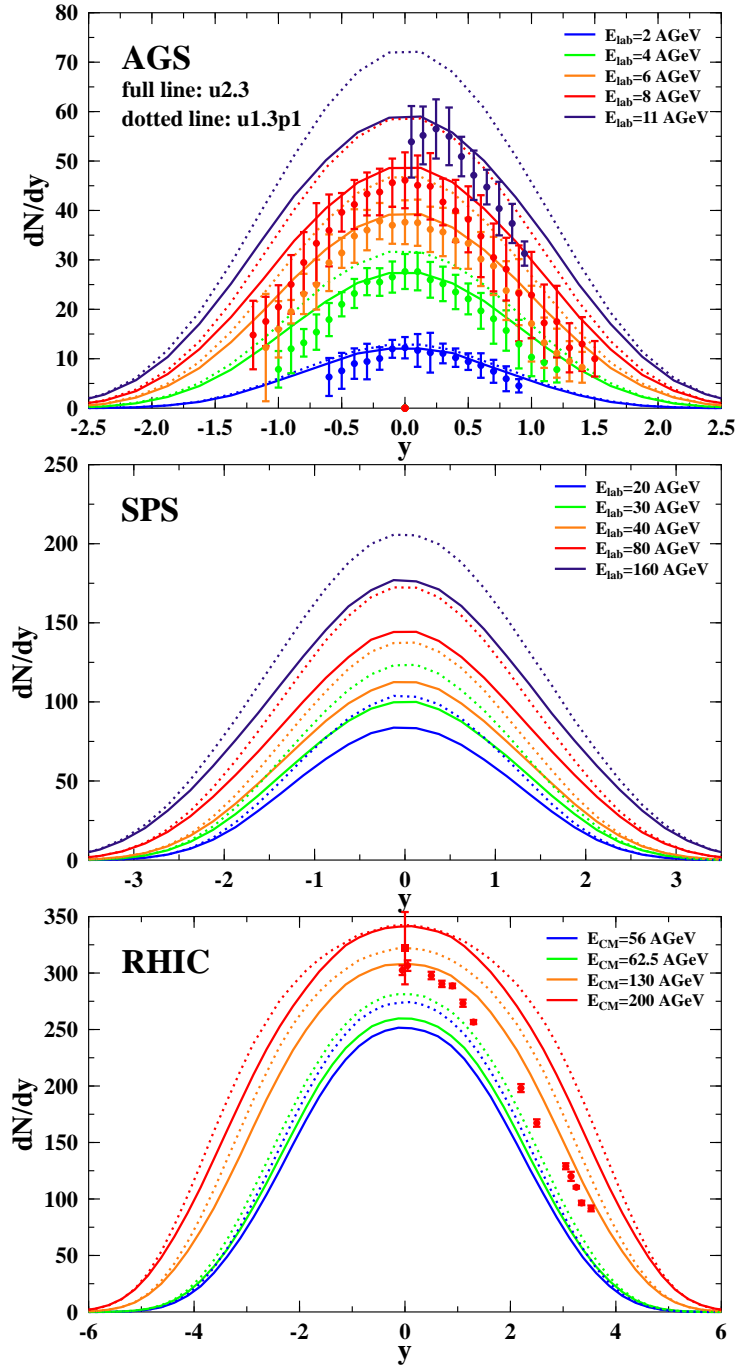


FIG. 11: (Color online) Rapidity spectra of  $\pi^+$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [89, 116, 118] are depicted with symbols.

# UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, $\pi^-$

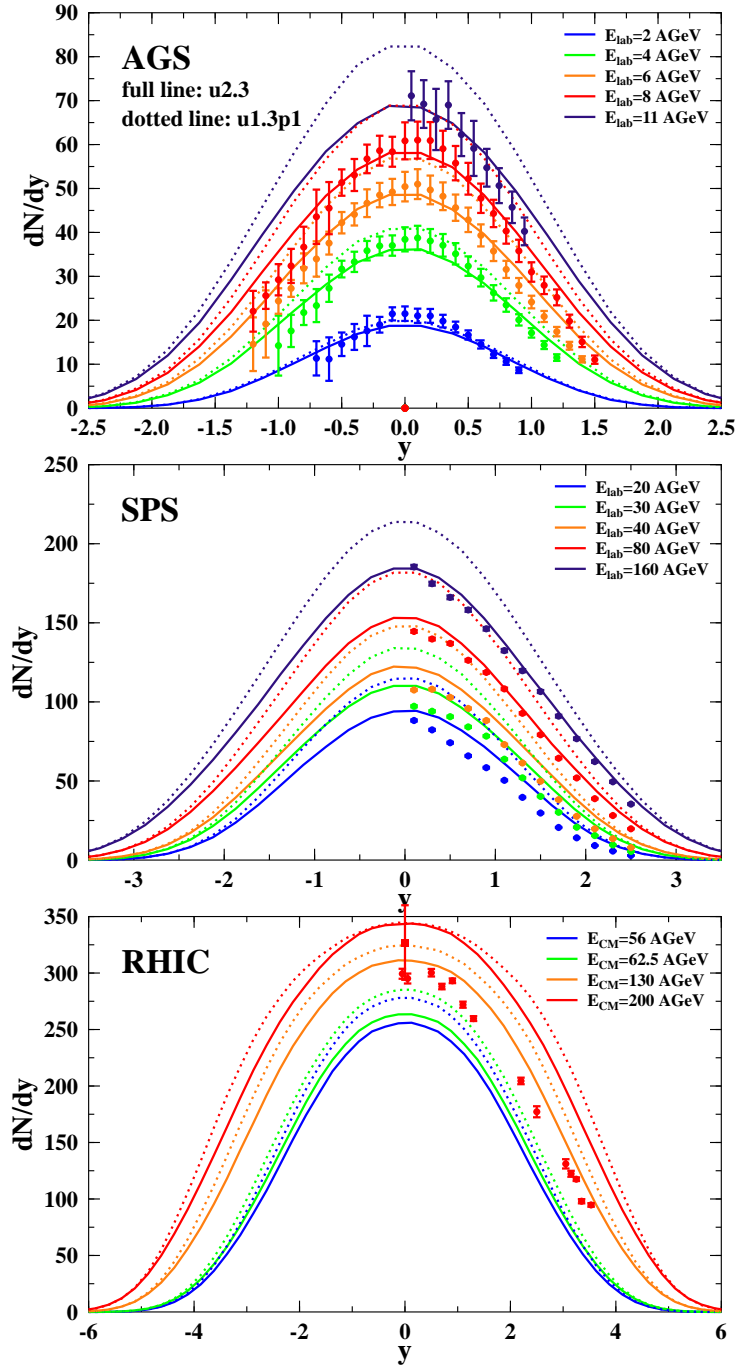


FIG. 12: (Color online) Rapidity spectra of  $\pi^-$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [89, 92, 93, 116, 118] are depicted with symbols.

# UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, $\pi^0$

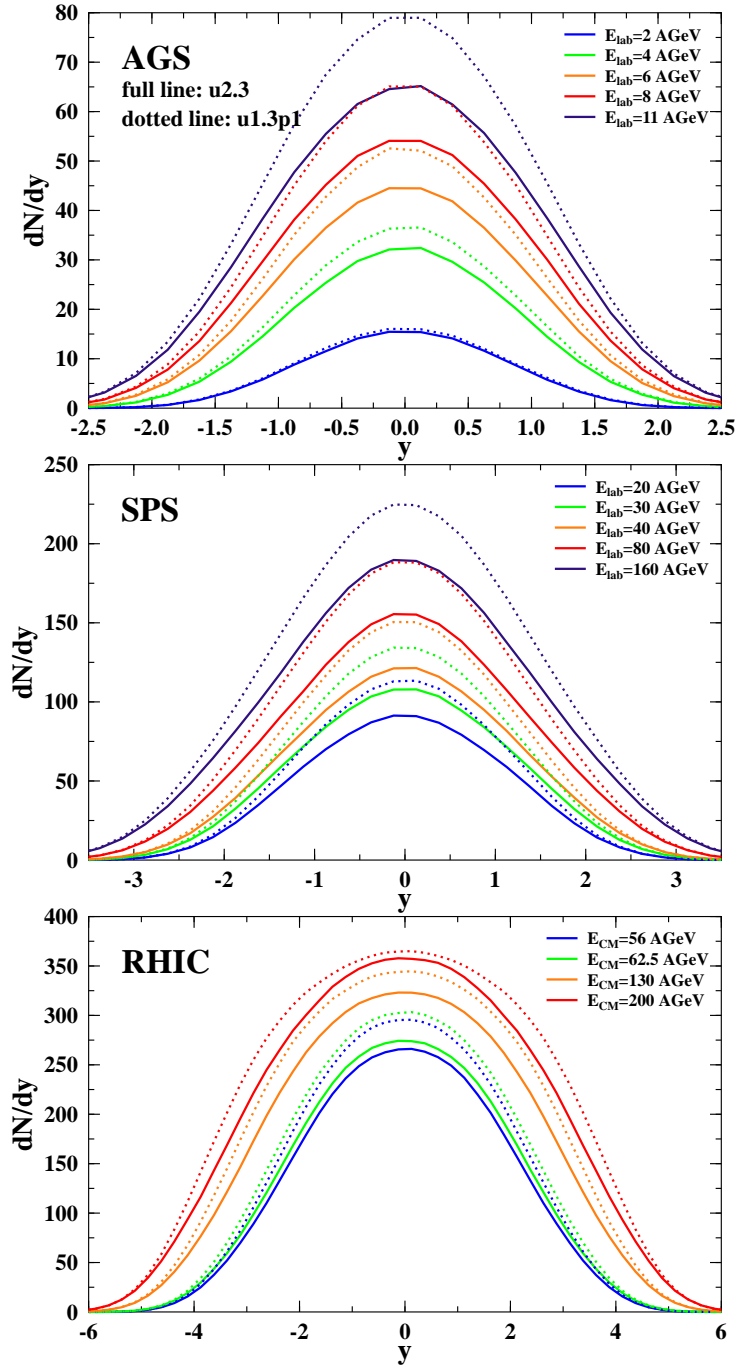


FIG. 13: (Color online) Rapidity spectra of  $\pi_0$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines.

# UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, $K^+$

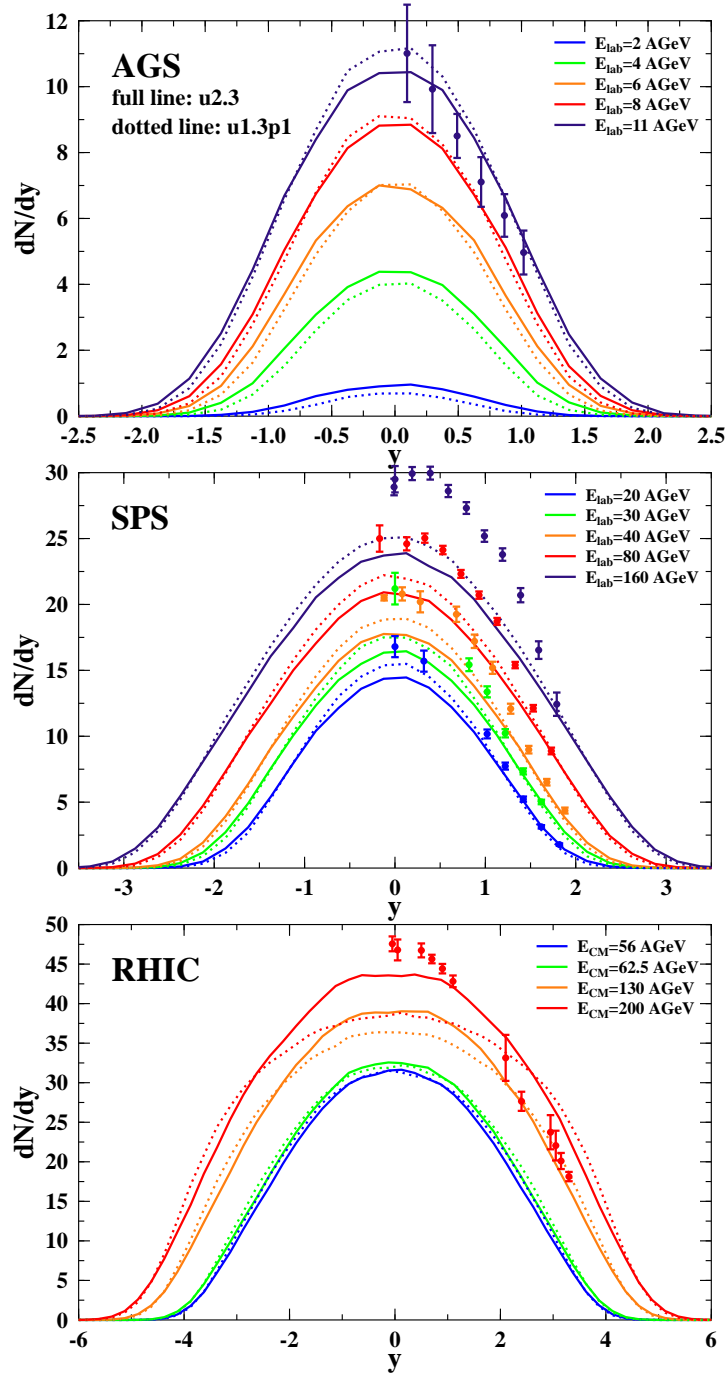


FIG. 14: (Color online) Rapidity spectra of  $K^+$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [92, 93, 116, 118] are depicted with symbols.

# UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, $K^-$

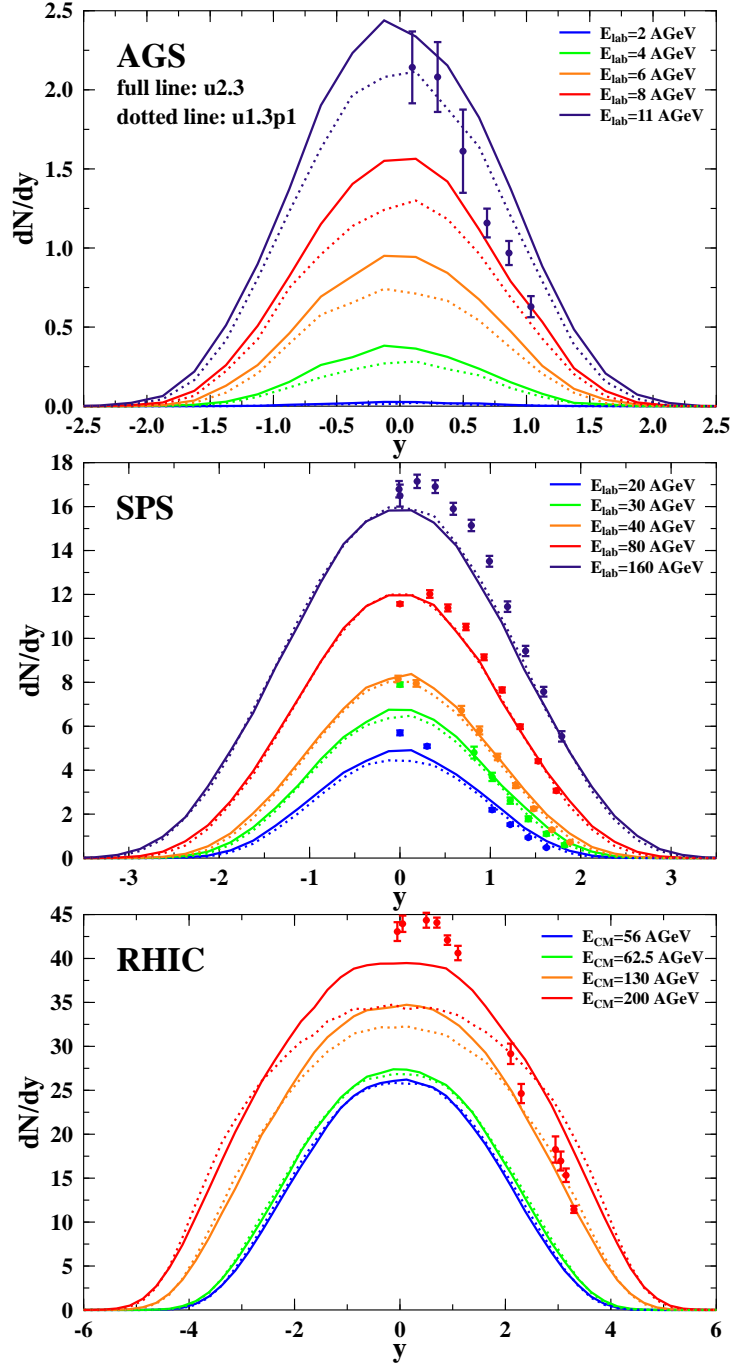


FIG. 15: (Color online) Rapidity spectra of  $K^-$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [92, 93, 116, 118] are depicted with symbols.

# UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, $\Lambda$

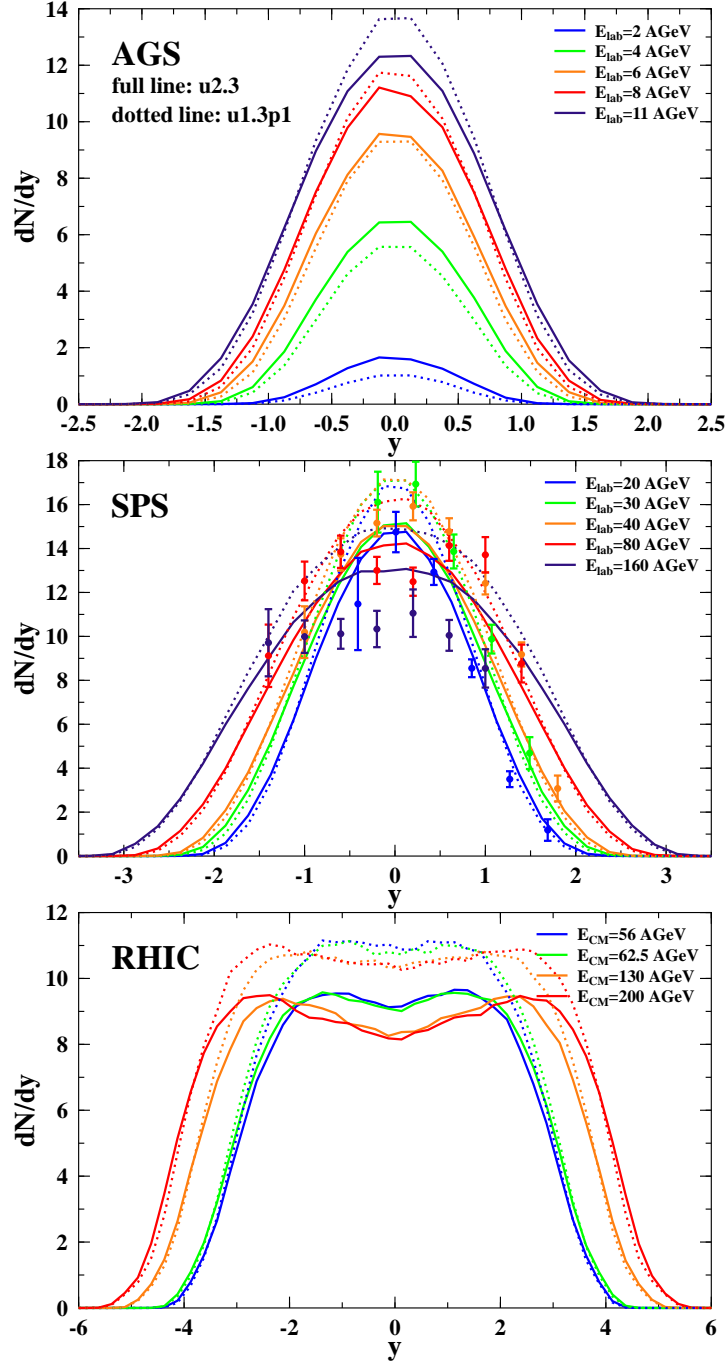


FIG. 16: (Color online) Rapidity spectra of  $\Lambda + \Sigma_0$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{lab} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from NA49 [94, 95, 96] are depicted with symbols.

# UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, Anti- $\Lambda$

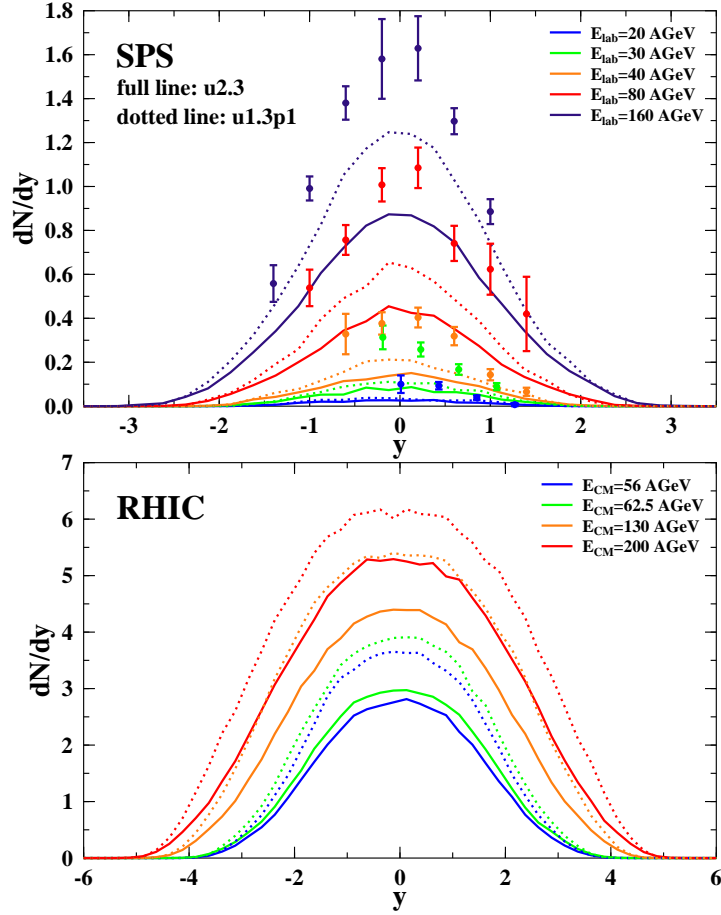


FIG. 17: (Color online) Rapidity spectra of  $\bar{\Lambda} + \bar{\Sigma}_0$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 20$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from NA49 [94, 95, 96] are depicted with symbols.

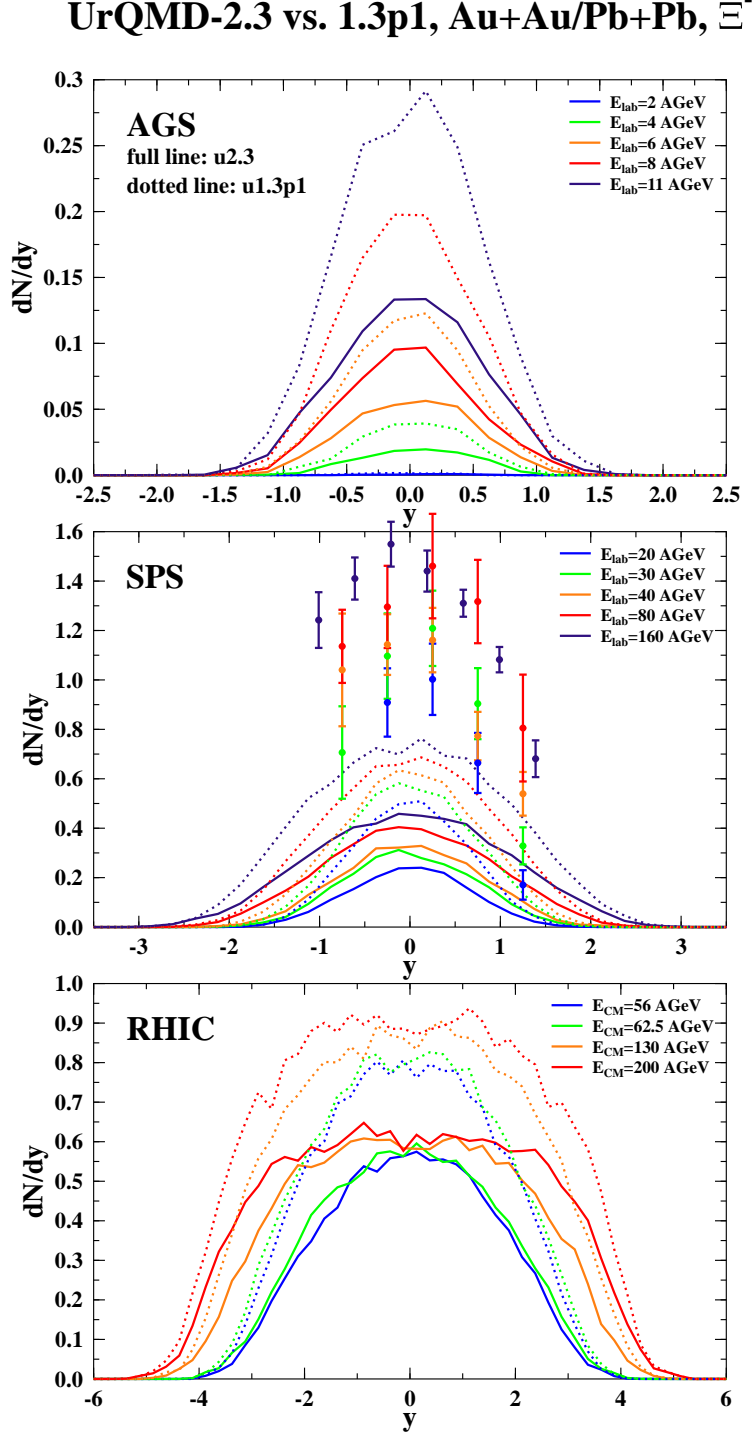


FIG. 18: (Color online) Rapidity spectra of  $\Xi^-$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from NA49 [96, 99] are depicted with symbols.



### UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, Anti- $\Xi^-$

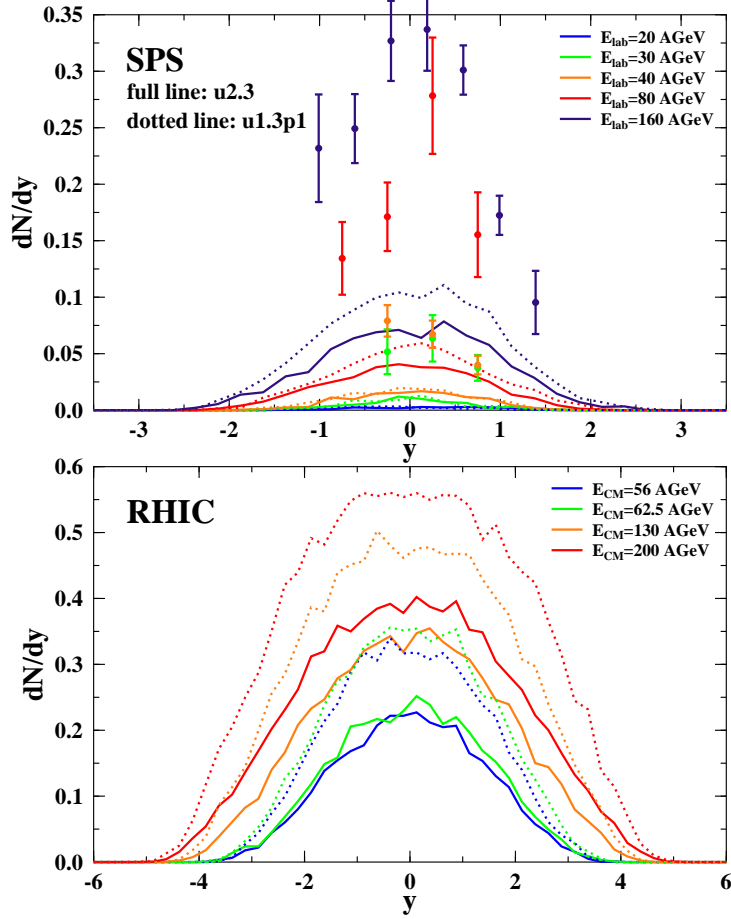


FIG. 19: (Color online) Rapidity spectra of  $\Xi^-$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 20$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from NA49 [96, 99] are depicted with symbols.

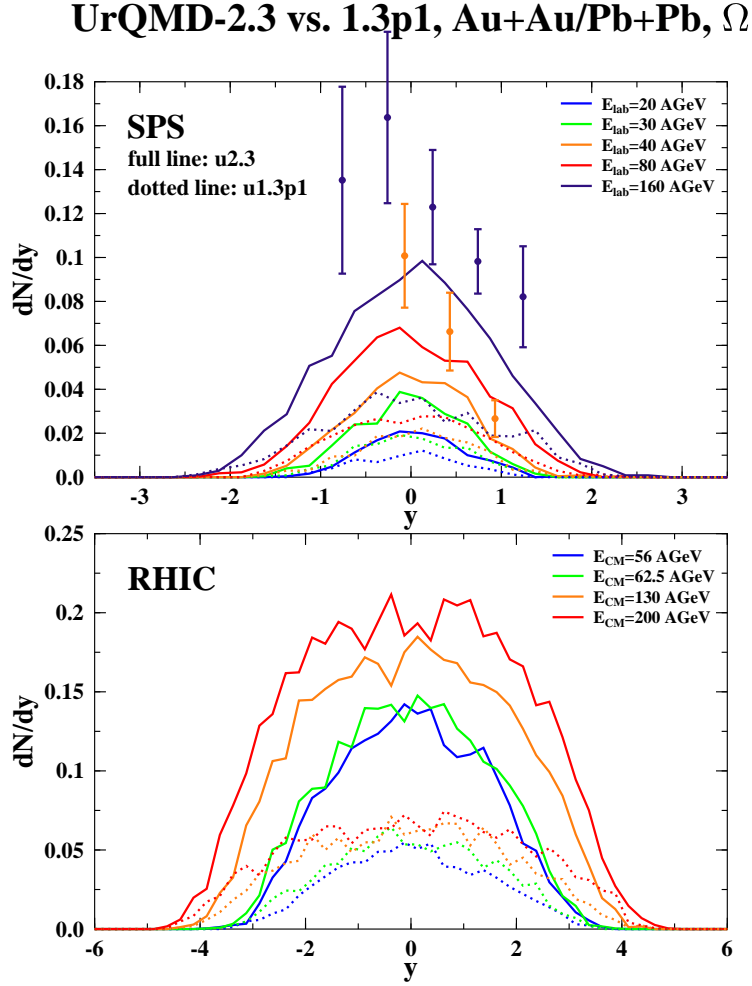


FIG. 20: (Color online) Rapidity spectra of  $\Omega$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 20$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from NA49 [100] are depicted with symbols.

### UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, Anti- $\Omega$

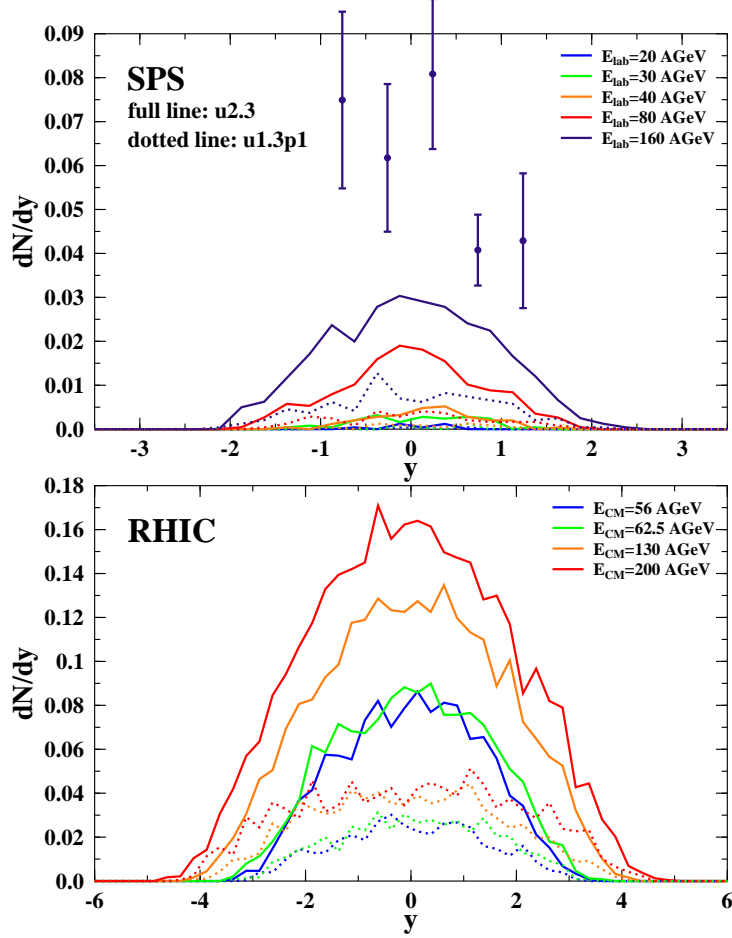


FIG. 21: (Color online) Rapidity spectra of  $\bar{\Omega}$  for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 20$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from NA49 [100] are depicted with symbols.

# UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, P

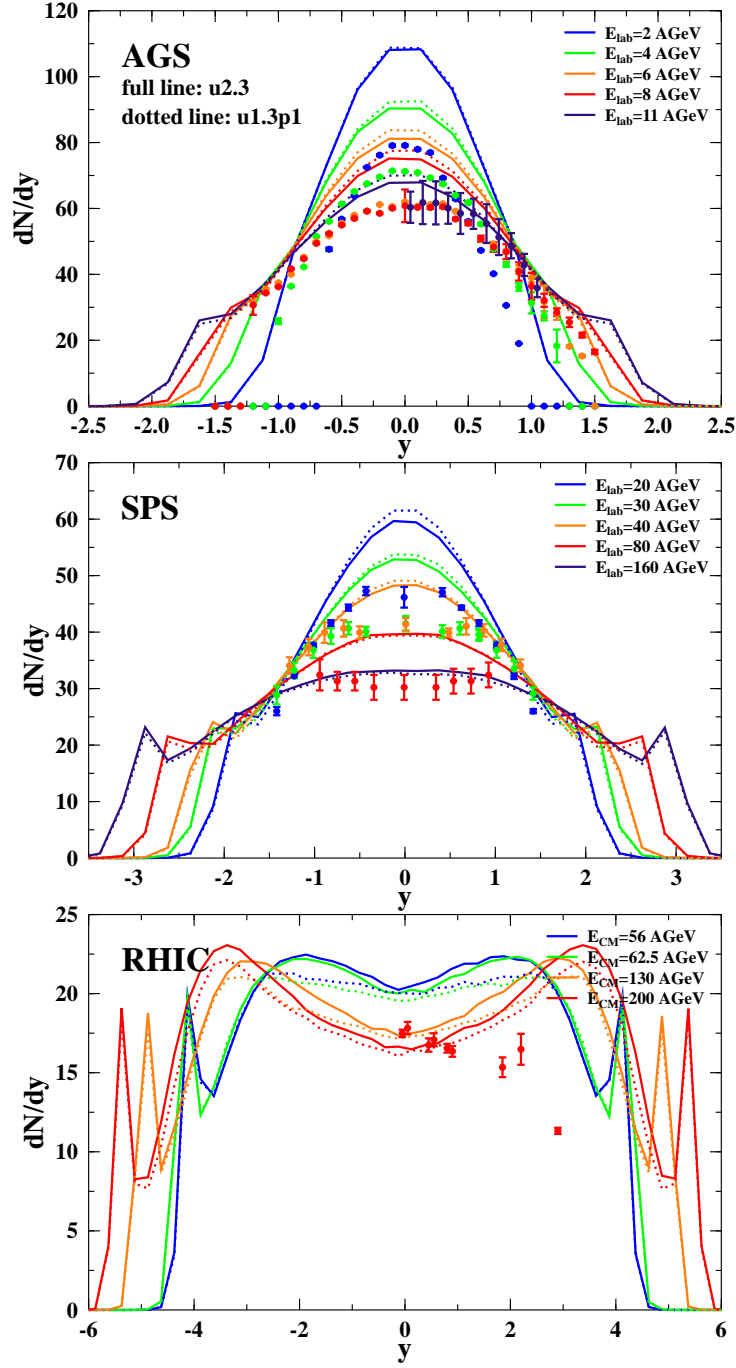


FIG. 22: (Color online) Rapidity spectra of protons for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{\text{lab}} = 2$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [115, 116, 119, 120] are depicted with symbols.

### UrQMD-2.3 vs. 1.3p1, Au+Au/Pb+Pb, Anti-P

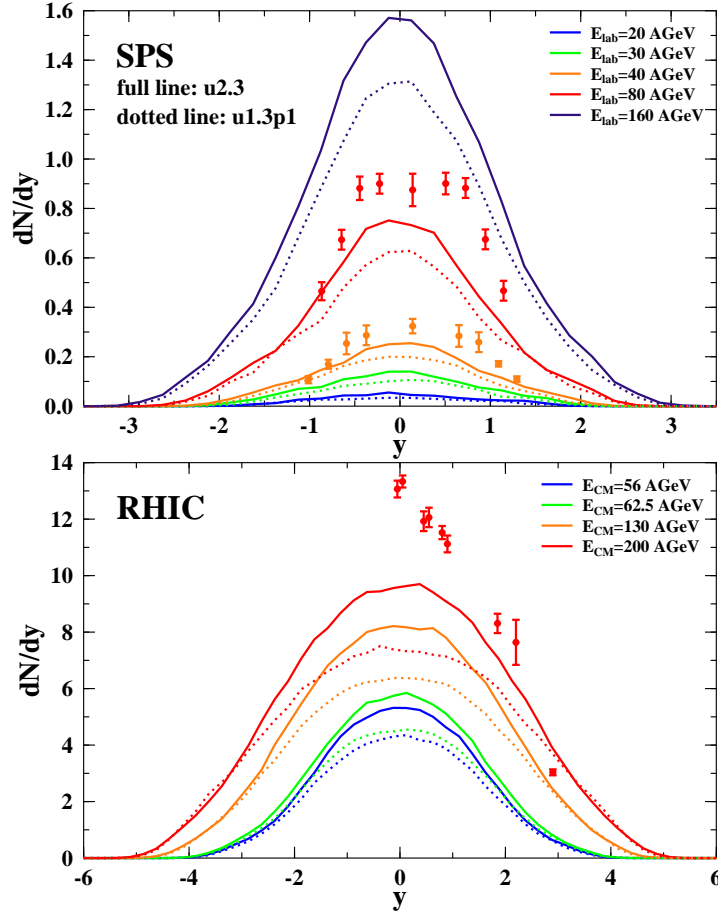


FIG. 23: (Color online) Rapidity spectra of antiprotons for central ( $b < 3.4$  fm) Au+Au/Pb+Pb collisions from  $E_{lab} = 20$  AGeV to  $\sqrt{s_{NN}} = 200$  GeV. UrQMD-2.3 calculations are depicted with full lines, while UrQMD-1.3p1 calculations are depicted with dotted lines. The corresponding data from different experiments [119, 120] are depicted with symbols.

## APPENDIX B: NUMERICAL DATA

The following Section contains all the numerical data for the UrQMD-2.3 results that have been shown in the Figs in Section A. The following abbreviations for the particle types are used:

pi+	: $\pi^+$
pi-	: $\pi^-$
pi0	: $\pi^0$
K+	: $K^+$
K-	: $K^-$
P	: Protons
aP	: Antiprotons
L+S0	: $\Lambda + \Sigma_0$
a(L+S0)	: $\bar{\Lambda} + \bar{\Sigma}_0$
Xi-	: $\Xi^-$
aXi-	: $\Xi^+$
Om	: $\Omega$
aOm	: $\bar{\Omega}$

## Total multiplicities in p-p collisions

The results for the energy dependence (ecm is  $\sqrt{s_{NN}}$ ) are given.

!ecm	pi+	pi-	pi0	K+	K-	P	aP	L+S0	a(L+S0)	Xi-	aXi-	Om	aOm
2.325E+00	8.034E-01	5.202E-04	1.951E-01	0.000E+00	0.000E+00	1.197E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.695E+00	8.170E-01	5.357E-02	2.809E-01	1.778E-03	0.000E+00	1.235E+00	0.000E+00	1.773E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.325E+00	9.272E-01	2.727E-01	5.477E-01	1.366E-02	1.405E-04	1.327E+00	0.000E+00	1.151E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.845E+00	1.002E+00	3.975E-01	6.892E-01	2.114E-02	1.421E-03	1.368E+00	0.000E+00	2.124E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.305E+00	1.070E+00	4.790E-01	7.869E-01	2.727E-02	3.815E-03	1.377E+00	1.358E-06	2.683E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.915E+00	1.170E+00	5.813E-01	9.183E-01	3.711E-02	7.917E-03	1.372E+00	1.232E-04	3.539E-02	1.325E-05	1.325E-06	0.000E+00	0.000E+00	0.000E+00
6.405E+00	1.434E+00	8.425E-01	1.232E+00	6.595E-02	2.326E-02	1.353E+00	2.745E-03	5.510E-02	6.112E-04	1.256E-04	1.025E-04	0.000E+00	1.153E-05
7.735E+00	1.671E+00	1.074E+00	1.508E+00	9.364E-02	4.069E-02	1.339E+00	7.919E-03	7.141E-02	1.980E-03	3.377E-04	2.520E-04	3.780E-06	2.142E-05
8.865E+00	1.866E+00	1.265E+00	1.727E+00	1.162E-01	5.536E-02	1.332E+00	1.399E-02	8.357E-02	3.622E-03	5.996E-04	4.960E-04	2.374E-05	5.747E-05
1.240E+01	2.431E+00	1.815E+00	2.342E+00	1.828E-01	1.058E-01	1.316E+00	3.398E-02	1.144E-01	9.201E-03	1.339E-03	1.270E-03	1.154E-04	1.830E-04
1.743E+01	3.079E+00	2.450E+00	3.025E+00	2.603E-01	1.694E-01	1.311E+00	6.033E-02	1.428E-01	1.753E-02	2.609E-03	2.221E-03	2.202E-04	3.528E-04
3.000E+01	4.172E+00	3.524E+00	4.160E+00	3.924E-01	2.859E-01	1.321E+00	1.100E-01	1.830E-01	3.460E-02	4.818E-03	4.230E-03	5.172E-04	7.395E-04
4.001E+01	4.767E+00	4.110E+00	4.762E+00	4.650E-01	3.537E-01	1.337E+00	1.411E-01	2.016E-01	4.543E-02	5.895E-03	5.450E-03	7.397E-04	9.573E-04
5.601E+01	5.535E+00	4.862E+00	5.528E+00	5.591E-01	4.428E-01	1.360E+00	1.841E-01	2.249E-01	6.023E-02	7.435E-03	6.743E-03	8.734E-04	1.136E-03
6.251E+01	5.762E+00	5.086E+00	5.753E+00	5.867E-01	4.686E-01	1.368E+00	1.970E-01	2.310E-01	6.510E-02	8.079E-03	7.285E-03	1.006E-03	1.191E-03
8.000E+01	6.162E+00	5.473E+00	6.136E+00	6.382E-01	5.180E-01	1.381E+00	2.237E-01	2.433E-01	7.356E-02	8.952E-03	7.959E-03	1.092E-03	1.408E-03
1.000E+02	6.631E+00	5.932E+00	6.594E+00	6.997E-01	5.778E-01	1.403E+00	2.571E-01	2.550E-01	8.435E-02	9.900E-03	8.822E-03	1.124E-03	1.365E-03
1.300E+02	7.219E+00	6.508E+00	7.162E+00	7.763E-01	6.527E-01	1.433E+00	3.004E-01	2.729E-01	9.962E-02	1.117E-02	9.798E-03	1.182E-03	1.382E-03
2.000E+02	8.391E+00	7.653E+00	8.279E+00	9.343E-01	8.084E-01	1.503E+00	3.976E-01	3.062E-01	1.298E-01	1.299E-02	1.167E-02	1.080E-03	1.371E-03
5.460E+02	1.327E+01	1.248E+01	1.306E+01	1.599E+00	1.469E+00	1.869E+00	8.142E-01	4.411E-01	2.618E-01	2.211E-02	2.033E-02	7.696E-04	8.871E-04
9.000E+02	1.528E+01	1.447E+01	1.503E+01	1.868E+00	1.738E+00	2.029E+00	9.856E-01	4.963E-01	3.176E-01	2.628E-02	2.430E-02	7.125E-04	7.823E-04
1.800E+03	1.995E+01	1.914E+01	1.974E+01	2.474E+00	2.343E+00	2.394E+00	1.355E+00	6.187E-01	4.373E-01	3.544E-02	3.312E-02	8.820E-04	9.213E-04
5.500E+03	2.919E+01	2.838E+01	2.905E+01	3.671E+00	3.542E+00	3.121E+00	2.081E+00	8.565E-01	6.750E-01	5.353E-02	5.112E-02	1.519E-03	1.432E-03
1.400E+04	3.872E+01	3.791E+01	3.867E+01	4.905E+00	4.775E+00	3.871E+00	2.832E+00	1.104E+00	9.208E-01	7.280E-02	7.042E-02	2.071E-03	2.130E-03

## $\langle p_T \rangle$ excitation function in p-p collisions

All  $\langle p_T \rangle$  values are given at midrapidity ( $|y| < 0.5$ ).

!ecm	pi+	pi-	pi0	K+	K-	P	aP	L+S0	a(L+S0)	Xi-	aXi-	Om	aOm
2.325E+00	2.221E-01	8.720E-02	2.124E-01	0.000E+00	0.000E+00	2.459E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
2.695E+00	2.724E-01	2.382E-01	2.707E-01	2.013E-01	0.000E+00	2.976E-01	0.000E+00	1.959E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.325E+00	3.266E-01	3.112E-01	3.207E-01	4.140E-01	1.364E-01	3.826E-01	0.000E+00	3.927E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
3.845E+00	3.342E-01	3.112E-01	3.250E-01	4.327E-01	1.825E-01	4.397E-01	0.000E+00	4.167E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.305E+00	3.390E-01	3.103E-01	3.248E-01	4.391E-01	2.240E-01	4.933E-01	1.505E-01	4.405E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
4.915E+00	3.450E-01	3.136E-01	3.281E-01	4.290E-01	2.694E-01	5.617E-01	2.253E-01	4.875E-01	2.096E-01	3.271E-01	0.000E+00	0.000E+00	0.000E+00
6.405E+00	3.454E-01	3.214E-01	3.300E-01	4.424E-01	3.436E-01	6.321E-01	3.618E-01	5.619E-01	3.752E-01	5.173E-01	3.899E-01	0.000E+00	3.058E-01
7.735E+00	3.338E-01	3.258E-01	3.242E-01	4.443E-01	3.832E-01	6.147E-01	4.206E-01	5.726E-01	4.638E-01	5.862E-01	4.556E-01	3.854E-01	5.285E-01
8.865E+00	3.297E-01	3.280E-01	3.216E-01	4.458E-01	3.997E-01	5.896E-01	4.564E-01	5.637E-01	4.812E-01	5.884E-01	5.087E-01	6.506E-01	5.871E-01
1.240E+01	3.345E-01	3.429E-01	3.296E-01	4.519E-01	4.295E-01	5.486E-01	5.124E-01	5.380E-01	5.452E-01	6.159E-01	5.782E-01	6.729E-01	6.536E-01
1.743E+01	3.479E-01	3.572E-01	3.429E-01	4.561E-01	4.454E-01	5.303E-01	5.456E-01	5.222E-01	5.737E-01	6.188E-01	5.583E-01	5.908E-01	5.852E-01
3.000E+01	3.668E-01	3.693E-01	3.621E-01	4.602E-01	4.610E-01	5.348E-01	5.813E-01	5.224E-01	5.917E-01	6.027E-01	6.088E-01	6.372E-01	6.429E-01
4.001E+01	3.719E-01	3.740E-01	3.684E-01	4.679E-01	4.620E-01	5.446E-01	5.939E-01	5.393E-01	5.992E-01	6.017E-01	6.256E-01	6.074E-01	6.122E-01
5.601E+01	3.774E-01	3.780E-01	3.741E-01	4.748E-01	4.699E-01	5.644E-01	5.996E-01	5.621E-01	6.080E-01	6.185E-01	6.330E-01	6.087E-01	5.959E-01
6.251E+01	3.792E-01	3.797E-01	3.763E-01	4.766E-01	4.710E-01	5.686E-01	5.980E-01	5.730E-01	6.176E-01	6.431E-01	6.490E-01	6.067E-01	6.146E-01
8.000E+01	3.808E-01	3.803E-01	3.777E-01	4.772E-01	4.710E-01	5.749E-01	5.965E-01	5.760E-01	6.035E-01	6.318E-01	6.200E-01	6.039E-01	6.103E-01
1.000E+02	3.841E-01	3.830E-01	3.818E-01	4.826E-01	4.740E-01	5.869E-01	5.974E-01	5.834E-01	6.032E-01	6.067E-01	6.334E-01	5.987E-01	5.875E-01
1.300E+02	3.881E-01	3.872E-01	3.862E-01	4.898E-01	4.789E-01	5.940E-01	5.985E-01	6.018E-01	6.181E-01	6.285E-01	6.657E-01	6.450E-01	6.051E-01
2.000E+02	3.976E-01	3.945E-01	3.959E-01	5.045E-01	4.956E-01	6.165E-01	6.101E-01	6.306E-01	6.433E-01	6.575E-01	6.588E-01	6.285E-01	6.361E-01
5.460E+02	4.307E-01	4.291E-01	4.304E-01	5.668E-01	5.596E-01	6.997E-01	6.894E-01	7.501E-01	7.508E-01	7.746E-01	8.045E-01	7.790E-01	7.672E-01
9.000E+02	4.430E-01	4.415E-01	4.423E-01	5.897E-01	5.824E-01	7.328E-01	7.229E-01	7.909E-01	7.825E-01	8.463E-01	8.399E-01	8.533E-01	8.260E-01
1.800E+03	4.749E-01	4.743E-01	4.753E-01	6.458E-01	6.414E-01	8.222E-01	8.152E-01	9.026E-01	8.978E-01	9.592E-01	1.002E+00	1.034E+00	1.059E+00
5.500E+03	5.420E-01	5.414E-01	5.421E-01	7.582E-01	7.597E-01	1.006E+00	1.000E+00	1.107E+00	1.113E+00	1.228E+00	1.223E+00	1.515E+00	1.225E+00
1.400E+04	6.110E-01	6.106E-01	6.107E-01	8.792E-01	8.780E-01	1.187E+00	1.180E+00	1.314E+00	1.315E+00	1.481E+00	1.455E+00	1.592E+00	1.605E+00

## Multiplicities in A-A collisions

The total multiplicites ( $4\pi$ ) are displayed as a function of  $\sqrt{s_{\text{NN}}}$ . All results are for central Au+Au/Pb+Pb collisions  $b \leq 3.4$  fm.

```
!ecm pi+ pi- pi0 K+ K- P aP L+S0 a(L+S0) Xi- aXi- Om aOm
2.325E+00 6.601E+00 1.294E+01 9.499E+00 5.090E-02 1.000E-04 1.643E+02 0.000E+00 8.370E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
2.695E+00 2.387E+01 3.685E+01 3.076E+01 1.425E+00 3.620E-02 1.698E+02 0.000E+00 1.937E+00 0.000E+00 7.000E-04 0.000E+00 0.000E+00 0.000E+00
3.325E+00 5.968E+01 7.818E+01 7.059E+01 7.516E+00 5.988E-01 1.703E+02 4.000E-04 9.084E+00 1.000E-04 2.340E-02 0.000E+00 1.000E-04 0.000E+00
3.845E+00 9.146E+01 1.126E+02 1.048E+02 1.288E+01 1.677E+00 1.689E+02 1.200E-03 1.457E+01 3.000E-04 7.450E-02 0.000E+00 2.000E-03 0.000E+00
4.305E+00 1.188E+02 1.416E+02 1.339E+02 1.713E+01 2.902E+00 1.678E+02 3.600E-03 1.825E+01 1.400E-03 1.231E-01 2.000E-04 2.900E-03 1.000E-04
4.915E+00 1.522E+02 1.765E+02 1.696E+02 2.199E+01 4.757E+00 1.664E+02 1.330E-02 2.209E+01 5.600E-03 1.937E-01 7.000E-04 8.300E-03 1.000E-04
6.405E+00 2.362E+02 2.662E+02 2.598E+02 3.461E+01 1.056E+01 1.716E+02 1.074E-01 3.055E+01 5.600E-02 4.028E-01 5.200E-03 2.890E-02 8.000E-04
7.735E+00 2.953E+02 3.266E+02 3.220E+02 4.276E+01 1.555E+01 1.702E+02 2.990E-01 3.465E+01 1.673E-01 5.516E-01 1.530E-02 5.490E-02 4.800E-03
8.865E+00 3.417E+02 3.736E+02 3.710E+02 4.907E+01 1.991E+01 1.691E+02 5.544E-01 3.702E+01 3.029E-01 6.546E-01 2.960E-02 7.930E-02 6.700E-03
1.240E+01 4.695E+02 5.027E+02 5.064E+02 6.523E+01 3.235E+01 1.680E+02 1.695E+00 4.192E+01 9.819E-01 9.569E-01 8.582E-02 1.334E-01 3.369E-02
1.743E+01 6.210E+02 6.547E+02 6.672E+02 8.326E+01 4.773E+01 1.684E+02 3.923E+00 4.615E+01 2.186E+00 1.256E+00 1.799E-01 2.149E-01 7.114E-02
3.000E+01 8.510E+02 8.813E+02 9.085E+02 1.095E+02 7.315E+01 1.638E+02 9.480E+00 4.919E+01 5.161E+00 1.720E+00 4.098E-01 3.376E-01 1.604E-01
5.601E+01 1.218E+03 1.248E+03 1.290E+03 1.542E+02 1.155E+02 1.719E+02 1.973E+01 5.667E+01 1.057E+01 2.488E+00 8.172E-01 5.339E-01 3.084E-01
6.251E+01 1.293E+03 1.323E+03 1.369E+03 1.640E+02 1.248E+02 1.739E+02 2.199E+01 5.831E+01 1.176E+01 2.645E+00 9.015E-01 5.933E-01 3.445E-01
1.300E+02 1.828E+03 1.858E+03 1.924E+03 2.335E+02 1.923E+02 1.895E+02 3.892E+01 6.834E+01 2.086E+01 3.659E+00 1.611E+00 9.277E-01 6.075E-01
2.000E+02 2.203E+03 2.234E+03 2.315E+03 2.842E+02 2.424E+02 2.011E+02 5.085E+01 7.518E+01 2.771E+01 4.314E+00 2.072E+00 1.193E+00 8.260E-01
```

## Midrapidity yields in A-A collisions

The particle yields at midrapidity ( $|y| < 0.5$ ) are displayed as a function of beam energy (ecm is  $\sqrt{s_{\text{NN}}}$ ). All results are for central Au+Au/Pb+Pb collisions  $b \leq 3.4$  fm.

```
!ecm pi+ pi- pi0 K+ K- P aP L+S0 a(L+S0) Xi- aXi- Om aOm
2.325E+00 3.432E+00 6.784E+00 4.954E+00 3.650E-02 1.000E-04 1.213E+02 0.000E+00 7.340E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
2.695E+00 1.157E+01 1.785E+01 1.476E+01 8.693E-01 2.250E-02 1.021E+02 0.000E+00 1.442E+00 0.000E+00 6.000E-04 0.000E+00 0.000E+00 0.000E+00
3.325E+00 2.632E+01 3.463E+01 3.097E+01 4.161E+00 3.419E-01 8.664E+01 2.000E-04 5.920E+00 0.000E+00 1.710E-02 0.000E+00 1.000E-04 0.000E+00
3.845E+00 3.791E+01 4.691E+01 4.310E+01 6.644E+00 8.896E-01 7.814E+01 4.000E-04 8.855E+00 3.000E-04 5.210E-02 0.000E+00 1.900E-03 0.000E+00
4.305E+00 4.713E+01 5.634E+01 5.260E+01 8.479E+00 1.485E+00 7.238E+01 1.700E-03 1.043E+01 9.000E-04 8.370E-02 1.000E-04 2.000E-03 0.000E+00
4.915E+00 5.732E+01 6.673E+01 6.317E+01 1.016E+01 2.291E+00 6.567E+01 5.700E-03 1.170E+01 3.000E-03 1.230E-01 3.000E-04 5.900E-03 1.000E-04
6.405E+00 8.175E+01 9.208E+01 8.905E+01 1.403E+01 4.649E+00 5.816E+01 4.670E-02 1.412E+01 2.650E-02 2.247E-01 2.200E-03 1.880E-02 7.000E-04
7.735E+00 9.768E+01 1.078E+02 1.057E+02 1.596E+01 6.493E+00 5.185E+01 1.299E-01 1.459E+01 7.710E-02 2.821E-01 8.900E-03 3.200E-02 2.500E-03
8.865E+00 1.100E+02 1.196E+02 1.186E+02 1.740E+01 8.001E+00 4.758E+01 2.437E-01 1.463E+01 1.355E-01 3.149E-01 1.550E-02 4.350E-02 4.000E-03
1.240E+01 1.416E+02 1.502E+02 1.522E+02 2.054E+01 1.172E+01 3.957E+01 7.259E-01 1.398E+01 4.193E-01 3.876E-01 3.855E-02 6.097E-02 1.712E-02
1.743E+01 1.737E+02 1.815E+02 1.863E+02 2.344E+01 1.556E+01 3.314E+01 1.518E+00 1.296E+01 8.455E-01 4.413E-01 7.062E-02 8.983E-02 2.877E-02
3.000E+01 2.071E+02 2.125E+02 2.208E+02 2.624E+01 1.992E+01 2.477E+01 3.079E+00 1.053E+01 1.642E+00 4.857E-01 1.386E-01 1.006E-01 4.812E-02
5.601E+01 2.501E+02 2.542E+02 2.644E+02 3.136E+01 2.597E+01 2.050E+01 5.271E+00 9.218E+00 2.750E+00 5.622E-01 2.207E-01 1.372E-01 7.802E-02
6.251E+01 2.585E+02 2.622E+02 2.730E+02 3.238E+01 2.718E+01 2.012E+01 5.708E+00 9.124E+00 2.945E+00 5.756E-01 2.330E-01 1.401E-01 8.678E-02
1.300E+02 3.073E+02 3.101E+02 3.222E+02 3.894E+01 3.451E+01 1.757E+01 8.152E+00 8.370E+00 4.385E+00 5.879E-01 3.408E-01 1.726E-01 1.240E-01
2.000E+02 3.403E+02 3.429E+02 3.567E+02 4.355E+01 3.942E+01 1.662E+01 9.583E+00 8.247E+00 5.250E+00 6.036E-01 3.900E-01 1.935E-01 1.608E-01
```



### $\langle p_T \rangle$ excitation function in A-A collisions

All  $\langle p_T \rangle$  values are given at midrapidity ( $|y| < 0.5$ ).

```
!ecm pi+ pi- pi0 K+ K- P aP L+S0 a(L+S0) Xi- aXi- 0m a0m
2.325E+00 2.086E-01 2.064E-01 2.087E-01 3.772E-01 4.848E-01 4.552E-01 0.000E+00 4.537E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
2.695E+00 2.674E-01 2.621E-01 2.689E-01 4.927E-01 4.346E-01 5.862E-01 0.000E+00 5.857E-01 0.000E+00 6.548E-01 0.000E+00 0.000E+00 0.000E+00
3.325E+00 3.182E-01 3.113E-01 3.171E-01 5.405E-01 4.955E-01 6.836E-01 1.281E+00 6.770E-01 0.000E+00 6.762E-01 0.000E+00 5.248E-01 0.000E+00
3.845E+00 3.359E-01 3.305E-01 3.371E-01 5.439E-01 5.351E-01 7.201E-01 1.082E+00 7.091E-01 6.964E-01 6.858E-01 0.000E+00 7.630E-01 0.000E+00
4.305E+00 3.455E-01 3.397E-01 3.458E-01 5.398E-01 5.453E-01 7.378E-01 9.830E-01 7.241E-01 8.251E-01 7.204E-01 3.674E-01 7.185E-01 0.000E+00
4.915E+00 3.531E-01 3.478E-01 3.535E-01 5.366E-01 5.464E-01 7.515E-01 9.501E-01 7.358E-01 7.794E-01 7.144E-01 5.301E-01 7.886E-01 1.009E+00
6.405E+00 3.626E-01 3.587E-01 3.630E-01 5.403E-01 5.634E-01 7.719E-01 8.650E-01 7.559E-01 8.678E-01 7.448E-01 7.764E-01 9.320E-01 6.626E-01
7.735E+00 3.683E-01 3.642E-01 3.684E-01 5.452E-01 5.680E-01 7.828E-01 8.730E-01 7.701E-01 8.610E-01 7.539E-01 8.097E-01 8.996E-01 9.155E-01
8.865E+00 3.701E-01 3.669E-01 3.708E-01 5.483E-01 5.667E-01 7.907E-01 8.706E-01 7.767E-01 8.625E-01 7.636E-01 7.704E-01 8.876E-01 8.217E-01
1.240E+01 3.732E-01 3.715E-01 3.734E-01 5.499E-01 5.704E-01 8.095E-01 8.454E-01 7.913E-01 8.482E-01 7.546E-01 7.472E-01 8.820E-01 8.553E-01
1.743E+01 3.752E-01 3.740E-01 3.744E-01 5.510E-01 5.674E-01 8.209E-01 8.293E-01 7.983E-01 8.248E-01 7.651E-01 7.157E-01 8.785E-01 7.865E-01
3.000E+01 3.796E-01 3.788E-01 3.774E-01 5.508E-01 5.620E-01 8.186E-01 8.052E-01 7.894E-01 8.106E-01 7.458E-01 7.391E-01 8.064E-01 7.950E-01
5.601E+01 3.892E-01 3.892E-01 3.877E-01 5.546E-01 5.690E-01 8.159E-01 8.052E-01 7.906E-01 8.169E-01 7.445E-01 7.691E-01 8.381E-01 7.889E-01
6.251E+01 3.915E-01 3.917E-01 3.903E-01 5.575E-01 5.720E-01 8.175E-01 8.057E-01 7.929E-01 8.242E-01 7.360E-01 7.590E-01 8.401E-01 7.897E-01
1.300E+02 4.086E-01 4.086E-01 4.078E-01 5.787E-01 5.970E-01 8.478E-01 8.375E-01 8.322E-01 8.673E-01 7.842E-01 7.907E-01 8.458E-01 8.346E-01
2.000E+02 4.220E-01 4.225E-01 4.210E-01 6.012E-01 6.212E-01 8.887E-01 8.724E-01 8.713E-01 9.051E-01 8.061E-01 8.324E-01 8.706E-01 8.743E-01
```

### $\langle m_T \rangle - m_0$ excitation function in A-A collisions

All  $\langle m_T \rangle - m_0$  values are given at midrapidity ( $|y| < 0.5$ ).

```
!ecm pi+ pi- pi0 K+ K- P aP L+S0 a(L+S0) Xi- aXi- 0m a0m
2.325E+00 1.211E-01 1.191E-01 1.209E-01 1.467E-01 1.981E-01 1.261E-01 0.000E+00 1.293E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
2.695E+00 1.735E-01 1.687E-01 1.747E-01 2.282E-01 1.864E-01 1.973E-01 0.000E+00 1.959E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
3.325E+00 2.202E-01 2.138E-01 2.191E-01 2.659E-01 2.328E-01 2.568E-01 6.535E-01 2.441E-01 0.000E+00 2.006E-01 0.000E+00 8.043E-02 0.000E+00
3.845E+00 2.366E-01 2.317E-01 2.376E-01 2.700E-01 2.629E-01 2.803E-01 5.221E-01 2.615E-01 2.504E-01 2.019E-01 0.000E+00 3.791E-01 0.000E+00
4.305E+00 2.456E-01 2.403E-01 2.457E-01 2.674E-01 2.703E-01 2.920E-01 4.347E-01 2.701E-01 3.226E-01 2.198E-01 5.037E-02 3.220E-01 0.000E+00
4.915E+00 2.526E-01 2.477E-01 2.529E-01 2.652E-01 2.712E-01 3.014E-01 4.220E-01 2.769E-01 2.858E-01 2.200E-01 1.295E-01 4.502E-01 5.358E-01
6.405E+00 2.614E-01 2.579E-01 2.618E-01 2.680E-01 2.844E-01 3.151E-01 3.653E-01 2.882E-01 3.496E-01 2.338E-01 2.533E-01 5.225E-01 1.374E-01
7.735E+00 2.668E-01 2.631E-01 2.669E-01 2.720E-01 2.883E-01 3.226E-01 3.721E-01 2.970E-01 3.450E-01 2.405E-01 2.708E-01 5.700E-01 4.385E-01
8.865E+00 2.685E-01 2.656E-01 2.692E-01 2.741E-01 2.872E-01 3.278E-01 3.718E-01 3.009E-01 3.458E-01 2.467E-01 2.388E-01 5.183E-01 4.136E-01
1.240E+01 2.713E-01 2.698E-01 2.715E-01 2.753E-01 2.903E-01 3.404E-01 3.566E-01 3.100E-01 3.406E-01 2.429E-01 2.382E-01 5.073E-01 4.482E-01
1.743E+01 2.731E-01 2.720E-01 2.724E-01 2.759E-01 2.878E-01 3.481E-01 3.481E-01 3.139E-01 3.259E-01 2.481E-01 2.200E-01 5.188E-01 3.731E-01
3.000E+01 2.772E-01 2.764E-01 2.751E-01 2.756E-01 2.839E-01 3.473E-01 3.344E-01 3.092E-01 3.181E-01 2.384E-01 2.312E-01 4.360E-01 3.855E-01
5.601E+01 2.861E-01 2.861E-01 2.847E-01 2.788E-01 2.897E-01 3.466E-01 3.353E-01 3.107E-01 3.225E-01 2.379E-01 2.499E-01 4.493E-01 3.631E-01
6.251E+01 2.882E-01 2.884E-01 2.871E-01 2.810E-01 2.921E-01 3.479E-01 3.359E-01 3.129E-01 3.275E-01 2.330E-01 2.425E-01 4.511E-01 3.847E-01
1.300E+02 3.042E-01 3.042E-01 3.035E-01 2.977E-01 3.117E-01 3.690E-01 3.580E-01 3.372E-01 3.548E-01 2.610E-01 2.600E-01 4.513E-01 4.152E-01
2.000E+02 3.168E-01 3.173E-01 3.159E-01 3.154E-01 3.308E-01 3.973E-01 3.826E-01 3.615E-01 3.798E-01 2.717E-01 2.862E-01 4.471E-01 4.543E-01
```

## Transverse mass spectra

All results are calculated at midrapidity ( $|y| < 0.5$ ). For each beam energy there is a table with the spectra for all particle species.  
 Au+Au  $E_{\text{lab}} = 2A$  GeV:

```
! m_t=m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+S0 a(L+S0) Xi- aXi- Om aOm)
1.250E-02 3.316E+02 5.224E+02 4.139E+02 5.749E+00 1.816E-01 4.360E+02 0.000E+00 6.497E+00 0.000E+00 6.026E-03 0.000E+00 0.000E+00 0.000E+00
3.750E-02 2.881E+02 4.461E+02 3.564E+02 5.381E+00 1.656E-01 3.991E+02 0.000E+00 5.642E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
6.250E-02 2.372E+02 3.739E+02 3.010E+02 4.636E+00 1.438E-01 3.618E+02 0.000E+00 4.925E+00 0.000E+00 2.904E-03 0.000E+00 0.000E+00 0.000E+00
8.750E-02 1.897E+02 3.033E+02 2.451E+02 4.175E+00 1.238E-01 3.246E+02 0.000E+00 4.101E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.125E-01 1.526E+02 2.458E+02 1.960E+02 3.495E+00 9.233E-02 2.879E+02 0.000E+00 3.712E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.375E-01 1.224E+02 1.920E+02 1.564E+02 3.420E+00 1.520E-01 2.536E+02 0.000E+00 3.130E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.625E-01 9.617E+01 1.505E+02 1.236E+02 3.260E+00 9.749E-02 2.223E+02 0.000E+00 2.785E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.875E-01 7.623E+01 1.163E+02 9.955E+01 2.876E+00 7.043E-02 1.936E+02 0.000E+00 2.286E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
2.125E-01 6.018E+01 9.172E+01 7.782E+01 5.096E-02 1.701E+02 0.000E+00 1.963E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
2.375E-01 4.794E+01 7.213E+01 6.200E+01 2.122E+00 6.015E-02 1.462E+02 0.000E+00 1.631E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
2.625E-01 3.860E+01 5.816E+01 4.985E+01 1.787E+00 3.173E-02 1.271E+02 0.000E+00 1.332E+00 0.000E+00 2.536E-03 0.000E+00 0.000E+00 0.000E+00
2.875E-01 3.067E+01 4.607E+01 3.974E+01 1.587E+00 4.095E-02 1.094E+02 0.000E+00 1.120E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
3.125E-01 2.523E+01 3.655E+01 3.213E+01 1.384E+00 9.919E-03 9.410E+01 0.000E+00 1.022E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
3.375E-01 1.992E+01 2.983E+01 2.608E+01 1.400E+00 1.924E-02 8.042E+01 0.000E+00 8.063E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
3.625E-01 1.602E+01 2.475E+01 2.019E+01 9.761E-01 3.736E-02 6.867E+01 0.000E+00 6.547E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
3.875E-01 1.406E+01 1.930E+01 1.740E+01 8.803E-01 3.176E-02 5.927E+01 0.000E+00 6.784E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
4.125E-01 1.109E+01 1.622E+01 1.431E+01 7.590E-01 1.765E-02 5.028E+01 0.000E+00 5.155E-01 0.000E+00 2.315E-03 0.000E+00 0.000E+00 0.000E+00
4.375E-01 8.778E+00 1.314E+01 1.177E+01 7.042E-01 1.288E-02 4.307E+01 0.000E+00 4.660E-01 0.000E+00 2.282E-03 0.000E+00 0.000E+00 0.000E+00
4.625E-01 7.507E+00 1.101E+01 9.825E+00 6.315E-01 8.364E-03 3.633E+01 0.000E+00 3.497E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
4.875E-01 6.401E+00 8.556E+00 8.083E+00 5.135E-01 8.151E-03 3.147E+01 0.000E+00 2.993E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
5.125E-01 4.956E+00 7.071E+00 6.204E+00 4.014E-01 0.000E+00 2.695E+01 0.000E+00 2.530E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
5.375E-01 4.252E+00 6.147E+00 5.531E+00 4.615E-01 0.000E+00 2.260E+01 0.000E+00 2.250E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
5.625E-01 3.603E+00 4.825E+00 4.208E+00 3.597E-01 0.000E+00 1.968E+01 0.000E+00 1.478E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
5.875E-01 2.939E+00 3.904E+00 3.600E+00 2.404E-01 7.397E-03 1.641E+01 0.000E+00 1.080E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
6.125E-01 2.462E+00 3.411E+00 3.241E+00 3.145E-01 3.615E-03 1.411E+01 0.000E+00 1.597E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
6.375E-01 1.945E+00 2.713E+00 2.460E+00 2.262E-01 3.535E-03 1.163E+01 0.000E+00 1.118E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
6.625E-01 1.664E+00 2.229E+00 1.974E+00 2.006E-01 3.459E-03 1.014E+01 0.000E+00 9.446E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
6.875E-01 1.439E+00 2.103E+00 1.822E+00 1.490E-01 0.000E+00 8.635E+00 0.000E+00 6.432E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
7.125E-01 1.096E+00 1.590E+00 1.307E+00 9.615E-02 0.000E+00 7.397E+00 0.000E+00 6.125E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
7.375E-01 8.818E-01 1.243E+00 1.307E+00 9.419E-02 3.248E-03 6.138E+00 0.000E+00 3.021E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
7.625E-01 8.440E-01 1.110E+00 9.506E-01 7.959E-02 6.367E-03 5.318E+00 0.000E+00 5.323E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
7.875E-01 5.619E-01 9.595E-01 8.082E-01 6.867E-02 0.000E+00 4.632E+00 0.000E+00 4.413E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
8.125E-01 5.471E-01 7.533E-01 6.523E-01 5.205E-02 0.000E+00 3.805E+00 0.000E+00 3.319E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
8.375E-01 3.854E-01 6.520E-01 5.618E-01 6.008E-02 0.000E+00 3.226E+00 0.000E+00 2.662E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
8.625E-01 3.518E-01 5.117E-01 4.718E-01 2.359E-02 0.000E+00 2.701E+00 0.000E+00 2.628E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
8.875E-01 2.886E-01 4.135E-01 4.135E-01 2.606E-02 0.000E+00 2.277E+00 0.000E+00 1.198E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.125E-01 2.208E-01 3.922E-01 3.122E-01 4.550E-02 0.000E+00 1.967E+00 0.000E+00 9.860E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.375E-01 2.380E-01 2.901E-01 2.975E-01 1.677E-02 0.000E+00 1.734E+00 0.000E+00 9.739E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.625E-01 1.745E-01 2.290E-01 2.290E-01 1.648E-02 0.000E+00 1.391E+00 0.000E+00 3.849E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.875E-01 1.208E-01 2.132E-01 2.203E-01 2.160E-02 0.000E+00 1.222E+00 0.000E+00 1.141E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.012E+00 1.495E-01 2.051E-01 1.738E-01 2.390E-02 0.000E+00 9.618E-01 0.000E+00 1.879E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.038E+00 1.021E-01 1.497E-01 1.531E-01 1.567E-02 2.612E-03 8.464E-01 0.000E+00 7.430E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.062E+00 9.663E-02 1.066E-01 9.996E-02 2.570E-03 0.000E+00 7.398E-01 0.000E+00 1.102E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.087E+00 5.222E-02 1.142E-01 7.507E-02 1.012E-02 2.529E-03 5.529E-01 0.000E+00 1.815E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.113E+00 5.758E-02 7.357E-02 8.317E-02 7.470E-03 0.000E+00 4.662E-01 0.000E+00 5.385E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.137E+00 4.077E-02 7.526E-02 9.408E-02 1.716E-02 0.000E+00 3.874E-01 0.000E+00 3.550E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.163E+00 5.844E-02 5.536E-02 4.306E-02 7.244E-03 0.000E+00 3.561E-01 0.000E+00 1.756E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.188E+00 5.432E-02 4.828E-02 6.035E-02 0.000E+00 0.000E+00 3.218E-01 0.000E+00 1.736E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.213E+00 2.073E-02 3.554E-02 3.554E-02 7.032E-03 0.000E+00 2.344E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.238E+00 1.745E-02 3.199E-02 2.908E-02 2.310E-03 0.000E+00 2.023E-01 0.000E+00 1.700E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.262E+00 2.856E-02 3.427E-02 1.714E-02 4.555E-03 0.000E+00 1.927E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.288E+00 8.418E-03 2.525E-02 2.525E-02 2.245E-03 0.000E+00 1.761E-01 0.000E+00 1.664E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.312E+00 0.000E+00 3.033E-02 2.206E-02 2.214E-03 0.000E+00 1.369E-01 0.000E+00 1.647E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
```

Au+Au  $E_{\text{lab}} = 44 \text{ GeV}$ :

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 6.294E+02 8.475E+02 7.276E+02 2.458E+01 2.472E+00 2.706E+02 0.000E+00 2.013E+01 0.000E+00 5.424E-02 0.000E+00 0.000E+00 0.000E+00
3.750E-02 5.323E+02 7.207E+02 6.281E+02 2.237E+01 2.115E+00 2.565E+02 0.000E+00 1.832E+01 0.000E+00 6.506E-02 0.000E+00 0.000E+00 0.000E+00
6.250E-02 4.458E+02 6.064E+02 5.295E+02 2.023E+01 1.941E+00 2.396E+02 0.000E+00 1.628E+01 0.000E+00 5.227E-02 0.000E+00 0.000E+00 0.000E+00
8.750E-02 3.722E+02 5.024E+02 4.397E+02 1.784E+01 1.761E+00 2.236E+02 0.000E+00 1.482E+01 0.000E+00 3.137E-02 0.000E+00 2.273E-03 0.000E+00
1.125E-01 3.044E+02 4.118E+02 3.630E+02 1.680E+01 1.477E+00 2.070E+02 0.000E+00 1.339E+01 0.000E+00 3.082E-02 0.000E+00 0.000E+00 0.000E+00
1.375E-01 2.530E+02 3.376E+02 2.983E+02 1.508E+01 1.311E+00 1.906E+02 0.000E+00 1.164E+01 0.000E+00 3.029E-02 0.000E+00 0.000E+00 0.000E+00
1.625E-01 2.067E+02 2.731E+02 2.439E+02 1.322E+01 1.152E+00 1.732E+02 0.000E+00 1.052E+01 0.000E+00 2.707E-02 0.000E+00 0.000E+00 0.000E+00
1.875E-01 1.698E+02 2.255E+02 2.029E+02 1.187E+01 9.567E-01 1.568E+02 0.000E+00 9.252E+00 0.000E+00 1.597E-02 0.000E+00 0.000E+00 0.000E+00
2.125E-01 1.402E+02 1.827E+02 1.665E+02 1.079E+01 9.738E-01 1.418E+02 0.000E+00 8.316E+00 0.000E+00 2.881E-02 0.000E+00 0.000E+00 0.000E+00
2.375E-01 1.142E+02 1.517E+02 1.356E+02 9.465E+00 7.820E-01 1.282E+02 0.000E+00 7.613E+00 0.000E+00 2.061E-02 0.000E+00 0.000E+00 0.000E+00
2.625E-01 9.591E+01 1.232E+02 1.104E+02 8.423E+00 6.292E-01 1.146E+02 0.000E+00 6.421E+00 0.000E+00 1.014E-02 0.000E+00 0.000E+00 0.000E+00
2.875E-01 7.794E+01 1.008E+02 9.210E+01 7.816E+00 5.118E-01 1.024E+02 0.000E+00 5.615E+00 0.000E+00 1.997E-02 0.000E+00 0.000E+00 0.000E+00
3.125E-01 6.584E+01 8.479E+01 7.676E+01 6.864E+00 5.307E-01 9.085E+01 0.000E+00 5.063E+00 0.000E+00 9.831E-03 0.000E+00 0.000E+00 0.000E+00
3.375E-01 5.483E+01 6.986E+01 6.519E+01 6.374E+00 5.244E-01 8.176E+01 0.000E+00 4.233E+00 0.000E+00 4.841E-03 0.000E+00 0.000E+00 0.000E+00
3.625E-01 4.638E+01 5.906E+01 5.323E+01 5.231E+00 4.250E-01 7.290E+01 0.000E+00 3.688E+00 0.000E+00 9.538E-03 0.000E+00 0.000E+00 0.000E+00
3.875E-01 3.984E+01 4.912E+01 4.564E+01 4.560E+00 3.539E-01 6.438E+01 0.000E+00 3.379E+00 0.000E+00 7.048E-03 0.000E+00 0.000E+00 0.000E+00
4.125E-01 3.332E+01 4.111E+01 4.023E+01 4.426E+00 3.089E-01 5.588E+01 0.000E+00 2.850E+00 0.000E+00 2.315E-03 0.000E+00 0.000E+00 0.000E+00
4.375E-01 2.738E+01 3.566E+01 3.341E+01 3.706E+00 2.362E-01 5.009E+01 0.000E+00 2.480E+00 0.000E+00 6.847E-03 0.000E+00 0.000E+00 0.000E+00
4.625E-01 2.359E+01 2.925E+01 2.805E+01 3.174E+00 2.049E-01 4.513E+01 0.000E+00 2.187E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
4.875E-01 2.030E+01 2.543E+01 2.390E+01 2.849E+00 1.549E-01 3.970E+01 0.000E+00 1.871E+00 0.000E+00 2.219E-03 0.000E+00 0.000E+00 0.000E+00
5.125E-01 1.744E+01 2.216E+01 2.078E+01 2.603E+00 1.947E-01 3.452E+01 2.758E-03 1.759E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
5.375E-01 1.572E+01 1.890E+01 1.752E+01 2.261E+00 1.629E-01 3.029E+01 0.000E+00 1.401E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
5.625E-01 1.299E+01 1.651E+01 1.484E+01 1.829E+00 1.249E-01 2.668E+01 0.000E+00 1.225E+00 0.000E+00 2.130E-03 0.000E+00 0.000E+00 0.000E+00
5.875E-01 1.089E+01 1.357E+01 1.238E+01 1.646E+00 8.137E-02 2.388E+01 0.000E+00 1.040E+00 0.000E+00 2.102E-03 0.000E+00 0.000E+00 0.000E+00
6.125E-01 9.604E+00 1.206E+01 1.106E+01 1.547E+00 1.048E-01 2.059E+01 0.000E+00 9.095E-01 0.000E+00 4.150E-03 0.000E+00 0.000E+00 0.000E+00
6.375E-01 8.258E+00 1.032E+01 9.516E+00 1.382E+00 8.131E-02 1.846E+01 0.000E+00 7.687E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
6.625E-01 6.941E+00 8.819E+00 8.235E+00 1.266E+00 9.339E-02 1.590E+01 0.000E+00 7.332E-01 0.000E+00 4.046E-03 0.000E+00 0.000E+00 0.000E+00
6.875E-01 5.984E+00 7.724E+00 6.852E+00 9.479E-01 7.787E-02 1.408E+01 0.000E+00 6.365E-01 0.000E+00 3.995E-03 0.000E+00 0.000E+00 0.000E+00
7.125E-01 5.432E+00 6.486E+00 6.180E+00 8.554E-01 4.310E-02 1.261E+01 0.000E+00 5.425E-01 0.000E+00 1.973E-03 0.000E+00 0.000E+00 0.000E+00
7.375E-01 4.377E+00 5.629E+00 5.158E+00 7.795E-01 4.872E-02 1.069E+01 0.000E+00 4.791E-01 0.000E+00 1.949E-03 0.000E+00 0.000E+00 0.000E+00
7.625E-01 4.091E+00 4.797E+00 4.615E+00 7.449E-01 3.502E-02 9.110E+00 0.000E+00 3.897E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
7.875E-01 3.363E+00 4.218E+00 3.873E+00 6.211E-01 3.433E-02 8.232E+00 0.000E+00 3.761E-01 0.000E+00 1.902E-03 0.000E+00 0.000E+00 0.000E+00
8.125E-01 2.887E+00 3.653E+00 3.560E+00 5.603E-01 2.755E-02 7.401E+00 2.285E-03 3.028E-01 0.000E+00 1.880E-03 0.000E+00 0.000E+00 0.000E+00
8.375E-01 2.600E+00 3.026E+00 2.911E+00 4.536E-01 2.403E-02 6.400E+00 0.000E+00 2.682E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
8.625E-01 2.255E+00 2.595E+00 2.527E+00 4.128E-01 5.898E-03 5.503E+00 0.000E+00 2.406E-01 0.000E+00 1.837E-03 0.000E+00 0.000E+00 0.000E+00
8.875E-01 2.059E+00 2.473E+00 2.188E+00 3.735E-01 2.316E-02 4.884E+00 0.000E+00 1.917E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.125E-01 1.519E+00 1.991E+00 1.877E+00 2.901E-01 1.706E-02 4.243E+00 0.000E+00 1.755E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.375E-01 1.447E+00 1.581E+00 1.659E+00 2.683E-01 1.677E-02 3.856E+00 0.000E+00 1.909E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.625E-01 1.269E+00 1.508E+00 1.621E+00 2.609E-01 1.648E-02 3.315E+00 0.000E+00 1.251E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.875E-01 1.116E+00 1.279E+00 1.276E+00 1.836E-01 2.430E-02 2.773E+00 0.000E+00 1.483E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.012E+00 8.970E-01 1.123E+00 1.095E+00 1.726E-01 7.965E-03 2.451E+00 0.000E+00 9.396E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.038E+00 8.575E-01 1.041E+00 9.460E-01 1.254E-01 5.224E-03 2.124E+00 0.000E+00 8.730E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.062E+00 7.497E-01 8.330E-01 8.730E-01 1.388E-01 1.285E-02 1.942E+00 0.000E+00 6.610E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.087E+00 6.495E-01 8.160E-01 7.997E-01 1.138E-01 5.058E-03 1.742E+00 0.000E+00 6.717E-02 0.000E+00 1.665E-03 0.000E+00 0.000E+00 0.000E+00
1.113E+00 5.790E-01 6.333E-01 6.269E-01 9.213E-02 4.980E-03 1.463E+00 0.000E+00 5.205E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.137E+00 5.174E-01 6.335E-01 5.363E-01 1.030E-01 2.452E-03 1.260E+00 0.000E+00 8.165E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.163E+00 4.737E-01 5.106E-01 4.767E-01 7.486E-02 1.207E-02 1.084E+00 0.000E+00 3.511E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.188E+00 3.742E-01 4.768E-01 4.647E-01 6.423E-02 2.379E-03 9.748E-01 0.000E+00 2.952E-02 0.000E+00 1.598E-03 0.000E+00 0.000E+00 0.000E+00
1.213E+00 3.228E-01 3.939E-01 2.873E-01 7.735E-02 4.688E-03 8.352E-01 0.000E+00 3.092E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.238E+00 2.356E-01 3.402E-01 2.850E-01 5.082E-02 6.930E-03 7.060E-01 0.000E+00 1.700E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.262E+00 2.456E-01 2.742E-01 2.999E-01 4.782E-02 4.555E-03 6.071E-01 0.000E+00 2.018E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.288E+00 1.992E-01 2.441E-01 1.964E-01 4.491E-02 2.245E-03 6.003E-01 0.000E+00 2.663E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.312E+00 1.848E-01 1.986E-01 1.848E-01 3.543E-02 4.428E-03 4.817E-01 0.000E+00 1.482E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
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Au+Au  $E_{\text{lab}} = 6.4$  GeV:

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! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 8.349E+02 1.081E+03 9.348E+02 4.155E+01 5.797E+00 2.185E+02 0.000E+00 2.700E+01 0.000E+00 1.627E-01 0.000E+00 9.498E-03 0.000E+00
3.750E-02 7.243E+02 9.195E+02 8.170E+02 3.694E+01 4.832E+00 2.092E+02 0.000E+00 2.524E+01 0.000E+00 1.597E-01 0.000E+00 2.340E-03 0.000E+00
6.250E-02 6.105E+02 7.737E+02 6.917E+02 3.324E+01 4.471E+00 1.984E+02 0.000E+00 2.299E+01 0.000E+00 1.510E-01 0.000E+00 4.612E-03 0.000E+00
8.750E-02 5.096E+02 6.413E+02 5.772E+02 2.949E+01 3.955E+00 1.862E+02 0.000E+00 2.142E+01 3.324E-03 1.312E-01 0.000E+00 2.273E-03 0.000E+00
1.125E-01 4.220E+02 5.271E+02 4.829E+02 2.635E+01 3.561E+00 1.745E+02 3.808E-03 1.936E+01 3.256E-03 8.967E-02 0.000E+00 2.242E-03 0.000E+00
1.375E-01 3.512E+02 4.363E+02 4.007E+02 2.297E+01 3.313E+00 1.621E+02 0.000E+00 1.684E+01 0.000E+00 8.812E-02 0.000E+00 0.000E+00 0.000E+00
1.625E-01 2.916E+02 3.638E+02 3.323E+02 2.098E+01 2.821E+00 1.493E+02 0.000E+00 1.551E+01 0.000E+00 6.497E-02 0.000E+00 0.000E+00 0.000E+00
1.875E-01 2.393E+02 2.986E+02 2.764E+02 1.830E+01 2.547E+00 1.372E+02 0.000E+00 1.363E+01 0.000E+00 6.123E-02 0.000E+00 2.151E-03 0.000E+00
2.125E-01 1.988E+02 2.462E+02 2.261E+02 1.672E+01 2.259E+00 1.249E+02 0.000E+00 1.234E+01 0.000E+00 5.499E-02 0.000E+00 6.368E-03 0.000E+00
2.375E-01 1.672E+02 2.039E+02 1.912E+02 1.479E+01 1.985E+00 1.140E+02 0.000E+00 1.067E+01 0.000E+00 7.472E-02 0.000E+00 4.190E-03 0.000E+00
2.625E-01 1.384E+02 1.687E+02 1.582E+02 1.294E+01 1.708E+00 1.036E+02 0.000E+00 9.465E+00 0.000E+00 4.311E-02 0.000E+00 0.000E+00 0.000E+00
2.875E-01 1.195E+02 1.426E+02 1.161E+01 1.510E+00 9.317E+01 0.000E+00 9.317E+01 0.000E+00 8.735E+00 0.000E+00 3.495E-02 0.000E+00 0.000E+00 0.000E+00
3.125E-01 9.680E+01 1.184E+02 1.119E+02 1.031E+01 1.364E+00 8.504E+01 0.000E+00 7.474E+00 0.000E+00 3.687E-02 0.000E+00 2.016E-03 0.000E+00
3.375E-01 8.229E+01 9.972E+01 9.471E+01 9.414E+00 1.280E+00 7.700E+01 0.000E+00 6.795E+00 0.000E+00 3.873E-02 0.000E+00 0.000E+00 0.000E+00
3.625E-01 6.979E+01 8.408E+01 7.758E+01 7.944E+00 1.149E+00 6.809E+01 0.000E+00 5.971E+00 0.000E+00 2.861E-02 0.000E+00 0.000E+00 0.000E+00
3.875E-01 5.981E+01 6.988E+01 6.842E+01 7.342E+00 1.085E+00 6.124E+01 0.000E+00 5.249E+00 0.000E+00 2.349E-02 0.000E+00 0.000E+00 0.000E+00
4.125E-01 5.010E+01 6.183E+01 5.798E+01 6.610E+00 8.869E-01 5.399E+01 0.000E+00 4.622E+00 0.000E+00 1.389E-02 0.000E+00 0.000E+00 0.000E+00
4.375E-01 4.443E+01 5.188E+01 4.819E+01 5.445E+00 7.128E-01 4.922E+01 0.000E+00 3.973E+00 0.000E+00 2.967E-02 0.000E+00 1.896E-03 0.000E+00
4.625E-01 3.732E+01 4.391E+01 4.266E+01 5.110E+00 6.858E-01 4.348E+01 2.856E-03 3.837E+00 0.000E+00 1.350E-02 0.000E+00 1.874E-03 0.000E+00
4.875E-01 3.185E+01 3.808E+01 3.639E+01 4.687E+00 6.032E-01 3.859E+01 0.000E+00 3.196E+00 2.495E-03 1.553E-02 0.000E+00 0.000E+00 0.000E+00
5.125E-01 2.695E+01 3.269E+01 3.174E+01 3.923E+00 5.166E-01 3.481E+01 0.000E+00 2.793E+00 0.000E+00 1.094E-02 0.000E+00 0.000E+00 0.000E+00
5.375E-01 2.396E+01 2.877E+01 2.737E+01 3.571E+00 4.382E-01 3.083E+01 0.000E+00 2.535E+00 0.000E+00 4.318E-03 0.000E+00 1.810E-03 0.000E+00
5.625E-01 2.105E+01 2.515E+01 2.317E+01 3.264E+00 4.203E-01 2.743E+01 0.000E+00 2.121E+00 0.000E+00 4.261E-03 0.000E+00 0.000E+00 0.000E+00
5.875E-01 1.773E+01 2.087E+01 2.044E+01 2.741E+00 3.847E-01 2.475E+01 2.622E-03 1.883E+00 0.000E+00 1.682E-02 0.000E+00 0.000E+00 0.000E+00
6.125E-01 1.548E+01 1.846E+01 1.768E+01 2.433E+00 2.675E-01 2.170E+01 0.000E+00 1.636E+00 0.000E+00 2.075E-03 0.000E+00 0.000E+00 0.000E+00
6.375E-01 1.326E+01 1.588E+01 1.499E+01 2.209E+00 3.323E-01 1.885E+01 0.000E+00 1.419E+00 0.000E+00 2.049E-03 0.000E+00 0.000E+00 0.000E+00
6.625E-01 1.185E+01 1.375E+01 1.346E+01 2.020E+00 2.110E-01 1.702E+01 0.000E+00 1.293E+00 0.000E+00 8.091E-03 0.000E+00 0.000E+00 0.000E+00
6.875E-01 1.035E+01 1.230E+01 1.201E+01 1.723E+00 2.234E-01 1.495E+01 0.000E+00 1.045E+00 0.000E+00 1.998E-03 0.000E+00 0.000E+00 0.000E+00
7.125E-01 8.908E+00 1.049E+01 1.054E+01 1.525E+00 1.989E-01 1.326E+01 0.000E+00 1.002E+00 0.000E+00 7.891E-03 0.000E+00 0.000E+00 0.000E+00
7.375E-01 7.776E+00 9.485E+00 8.690E+00 1.218E+00 1.364E-01 1.199E+01 0.000E+00 9.193E-01 0.000E+00 1.949E-03 0.000E+00 0.000E+00 0.000E+00
7.625E-01 7.134E+00 8.093E+00 7.689E+00 1.245E+00 1.464E-01 1.038E+01 0.000E+00 7.964E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
7.875E-01 5.995E+00 6.941E+00 6.531E+00 1.058E+00 1.092E-01 9.303E+00 0.000E+00 7.208E-01 0.000E+00 1.902E-03 0.000E+00 0.000E+00 0.000E+00
8.125E-01 5.201E+00 6.144E+00 5.908E+00 8.909E-01 9.797E-02 8.226E+00 0.000E+00 6.181E-01 0.000E+00 1.880E-03 0.000E+00 0.000E+00 0.000E+00
8.375E-01 4.470E+00 5.511E+00 5.019E+00 7.630E-01 9.012E-02 7.383E+00 0.000E+00 4.730E-01 0.000E+00 5.575E-03 0.000E+00 0.000E+00 0.000E+00
8.625E-01 4.058E+00 4.622E+00 4.670E+00 7.018E-01 9.141E-02 6.387E+00 0.000E+00 4.953E-01 0.000E+00 1.837E-03 0.000E+00 0.000E+00 0.000E+00
8.875E-01 3.370E+00 4.181E+00 3.858E+00 6.225E-01 6.370E-02 5.513E+00 0.000E+00 3.434E-01 0.000E+00 1.816E-03 0.000E+00 0.000E+00 0.000E+00
9.125E-01 3.020E+00 3.743E+00 3.358E+00 6.228E-01 5.688E-02 4.883E+00 0.000E+00 3.707E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.375E-01 2.693E+00 3.459E+00 3.109E+00 5.086E-01 6.706E-02 4.558E+00 2.133E-03 3.136E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.625E-01 2.264E+00 2.741E+00 2.672E+00 4.174E-01 5.218E-02 4.020E+00 0.000E+00 2.867E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.875E-01 2.072E+00 2.470E+00 2.434E+00 4.374E-01 5.670E-02 3.442E+00 0.000E+00 2.358E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.012E+00 1.714E+00 2.166E+00 2.187E+00 3.903E-01 4.514E-02 2.986E+00 0.000E+00 2.067E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.038E+00 1.504E+00 1.797E+00 1.797E+00 2.037E-01 2.612E-02 2.594E+00 0.000E+00 1.839E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.062E+00 1.429E+00 1.696E+00 1.596E+00 2.518E-01 3.598E-02 2.403E+00 0.000E+00 1.340E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.087E+00 1.149E+00 1.397E+00 1.446E+00 2.251E-01 2.782E-02 2.056E+00 0.000E+00 1.234E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.113E+00 1.100E+00 1.228E+00 1.257E+00 2.017E-01 2.490E-02 1.834E+00 0.000E+00 9.872E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.137E+00 8.781E-01 1.123E+00 1.120E+00 1.790E-01 1.961E-02 1.652E+00 0.000E+00 1.083E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.163E+00 7.782E-01 9.812E-01 1.006E+00 1.449E-01 2.898E-02 1.341E+00 0.000E+00 1.141E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.188E+00 7.605E-01 9.114E-01 8.118E-01 1.118E-01 1.665E-02 1.214E+00 0.000E+00 1.007E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.213E+00 6.161E-01 7.582E-01 6.990E-01 1.594E-01 2.110E-02 1.129E+00 0.000E+00 6.528E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.238E+00 5.903E-01 7.037E-01 7.008E-01 1.063E-01 1.848E-02 1.013E+00 0.000E+00 5.099E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.262E+00 4.598E-01 5.798E-01 5.741E-01 1.025E-01 1.139E-02 9.143E-01 0.000E+00 7.231E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.288E+00 4.069E-01 5.893E-01 5.107E-01 7.185E-02 1.347E-02 7.800E-01 0.000E+00 5.658E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.312E+00 4.109E-01 5.267E-01 4.964E-01 6.643E-02 1.329E-02 6.825E-01 0.000E+00 2.471E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
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Au+Au  $E_{\text{lab}} = 8.4 \text{ GeV}$ :

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 1.011E+03 1.243E+03 1.102E+03 5.380E+01 9.082E+00 1.937E+02 0.000E+00 3.109E+01 0.000E+00 2.139E-01 0.000E+00 9.498E-03 0.000E+00
3.750E-02 8.735E+02 1.070E+03 9.673E+02 4.773E+01 7.767E+00 1.855E+02 0.000E+00 2.861E+01 0.000E+00 2.396E-01 0.000E+00 2.340E-03 0.000E+00
6.250E-02 7.345E+02 8.972E+02 8.144E+02 4.325E+01 7.468E+00 1.762E+02 0.000E+00 2.624E+01 3.394E-03 2.178E-01 2.904E-03 6.918E-03 0.000E+00
8.750E-02 6.141E+02 7.537E+02 6.866E+02 3.977E+01 6.459E+00 1.660E+02 0.000E+00 2.396E+01 0.000E+00 1.968E-01 0.000E+00 0.000E+00 0.000E+00
1.125E-01 5.107E+02 6.192E+02 5.816E+02 3.437E+01 5.553E+00 1.567E+02 0.000E+00 2.194E+01 0.000E+00 1.849E-01 0.000E+00 0.000E+00 0.000E+00
1.375E-01 4.248E+02 5.180E+02 4.833E+02 3.071E+01 5.251E+00 1.451E+02 3.719E-03 1.997E+01 6.382E-03 1.294E-01 0.000E+00 4.421E-03 0.000E+00
1.625E-01 3.569E+02 4.302E+02 3.981E+02 2.674E+01 4.972E+00 1.364E+02 3.635E-03 1.799E+01 3.129E-03 1.029E-01 0.000E+00 4.361E-03 0.000E+00
1.875E-01 2.962E+02 3.572E+02 3.354E+02 2.358E+01 4.067E+00 1.240E+02 0.000E+00 1.605E+01 0.000E+00 1.038E-01 0.000E+00 0.000E+00 0.000E+00
2.125E-01 2.495E+02 2.981E+02 2.759E+02 2.101E+01 3.890E+00 1.144E+02 3.477E-03 1.420E+01 3.011E-03 8.380E-02 0.000E+00 0.000E+00 0.000E+00
2.375E-01 2.064E+02 2.452E+02 2.315E+02 1.878E+01 3.254E+00 1.043E+02 3.403E-03 1.257E+01 0.000E+00 9.018E-02 0.000E+00 2.095E-03 0.000E+00
2.625E-01 1.710E+02 2.029E+02 1.936E+02 1.682E+01 3.167E+00 9.454E+01 0.000E+00 1.145E+01 0.000E+00 1.166E-01 0.000E+00 4.135E-03 0.000E+00
2.875E-01 1.480E+02 1.713E+02 1.639E+02 1.452E+01 2.800E+00 8.568E+01 3.264E-03 9.984E+00 2.850E-03 6.989E-02 0.000E+00 2.041E-03 0.000E+00
3.125E-01 1.240E+02 1.460E+02 1.366E+02 1.290E+01 2.410E+00 7.817E+01 0.000E+00 9.089E+00 0.000E+00 7.373E-02 0.000E+00 4.031E-03 0.000E+00
3.375E-01 1.055E+02 1.233E+02 1.168E+02 1.153E+01 2.242E+00 7.186E+01 0.000E+00 8.162E+00 0.000E+00 2.905E-02 0.000E+00 0.000E+00 0.000E+00
3.625E-01 9.004E+01 1.029E+02 9.988E+01 9.989E+00 1.798E+00 6.460E+01 6.151E-03 7.313E+00 0.000E+00 5.484E-02 0.000E+00 1.966E-03 0.000E+00
3.875E-01 7.657E+01 8.875E+01 8.594E+01 8.576E+00 1.593E+00 5.808E+01 3.018E-03 6.348E+00 0.000E+00 3.524E-02 0.000E+00 0.000E+00 0.000E+00
4.125E-01 6.506E+01 7.580E+01 7.308E+01 7.771E+00 1.465E+00 5.145E+01 0.000E+00 5.768E+00 0.000E+00 3.242E-02 0.000E+00 0.000E+00 0.000E+00
4.375E-01 5.563E+01 6.597E+01 6.272E+01 7.081E+00 1.168E+00 4.627E+01 5.816E-03 4.918E+00 0.000E+00 2.967E-02 0.000E+00 0.000E+00 0.000E+00
4.625E-01 4.819E+01 5.529E+01 5.405E+01 6.256E+00 1.154E+00 4.116E+01 2.856E-03 4.399E+00 2.534E-03 2.025E-02 0.000E+00 0.000E+00 0.000E+00
4.875E-01 4.200E+01 4.867E+01 4.644E+01 5.123E+00 9.414E-01 3.719E+01 2.806E-03 3.842E+00 0.000E+00 1.997E-02 0.000E+00 0.000E+00 0.000E+00
5.125E-01 3.606E+01 4.120E+01 4.030E+01 4.948E+00 9.379E-01 3.348E+01 0.000E+00 3.399E+00 0.000E+00 2.408E-02 0.000E+00 0.000E+00 0.000E+00
5.375E-01 3.095E+01 3.542E+01 3.403E+01 4.390E+00 7.601E-01 3.005E+01 0.000E+00 2.978E+00 2.419E-03 1.296E-02 0.000E+00 0.000E+00 0.000E+00
5.625E-01 2.631E+01 3.069E+01 3.000E+01 3.850E+00 6.550E-01 2.665E+01 2.666E-03 2.517E+00 0.000E+00 1.704E-02 0.000E+00 1.790E-03 0.000E+00
5.875E-01 2.324E+01 2.598E+01 2.563E+01 3.499E+00 6.583E-01 2.386E+01 2.622E-03 2.374E+00 0.000E+00 8.410E-03 0.000E+00 0.000E+00 0.000E+00
6.125E-01 2.047E+01 2.362E+01 2.282E+01 2.906E+00 5.676E-01 2.169E+01 2.580E-03 2.085E+00 2.314E-03 1.660E-02 0.000E+00 0.000E+00 0.000E+00
6.375E-01 1.763E+01 2.075E+01 1.946E+01 2.549E+00 4.631E-01 1.908E+01 0.000E+00 1.814E+00 0.000E+00 8.195E-03 0.000E+00 0.000E+00 0.000E+00
6.625E-01 1.536E+01 1.745E+01 1.746E+01 2.435E+00 4.773E-01 1.738E+01 0.000E+00 1.626E+00 0.000E+00 1.011E-02 0.000E+00 0.000E+00 0.000E+00
6.875E-01 1.342E+01 1.551E+01 1.534E+01 2.116E+00 3.995E-01 1.522E+01 0.000E+00 1.411E+00 0.000E+00 5.993E-03 0.000E+00 0.000E+00 0.000E+00
7.125E-01 1.194E+01 1.332E+01 1.317E+01 1.989E+00 3.216E-01 1.355E+01 0.000E+00 1.295E+00 0.000E+00 1.578E-02 0.000E+00 0.000E+00 0.000E+00
7.375E-01 1.021E+01 1.223E+01 1.140E+01 1.757E+00 2.631E-01 1.178E+01 0.000E+00 1.127E+00 0.000E+00 5.847E-03 0.000E+00 0.000E+00 0.000E+00
7.625E-01 9.182E+00 1.047E+01 1.035E+01 1.493E+00 2.388E-01 1.047E+01 0.000E+00 9.241E-01 0.000E+00 5.776E-03 0.000E+00 0.000E+00 0.000E+00
7.875E-01 8.121E+00 9.098E+00 8.493E+00 1.464E+00 2.653E-01 9.231E+00 2.318E-03 9.393E-01 0.000E+00 5.707E-03 0.000E+00 0.000E+00 0.000E+00
8.125E-01 7.230E+00 7.819E+00 7.512E+00 1.166E+00 2.174E-01 8.551E+00 0.000E+00 8.400E-01 0.000E+00 7.521E-03 0.000E+00 0.000E+00 0.000E+00
8.375E-01 5.942E+00 7.106E+00 7.114E+00 1.036E+00 1.983E-01 7.466E+00 0.000E+00 6.757E-01 0.000E+00 5.575E-03 0.000E+00 0.000E+00 0.000E+00
8.625E-01 5.177E+00 5.929E+00 6.041E+00 9.200E-01 1.356E-01 6.691E+00 0.000E+00 6.247E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
8.875E-01 4.825E+00 5.539E+00 5.207E+00 7.875E-01 9.844E-02 5.842E+00 2.191E-03 5.530E-01 0.000E+00 1.816E-03 0.000E+00 0.000E+00 0.000E+00
9.125E-01 3.990E+00 4.691E+00 4.664E+00 6.769E-01 1.422E-01 5.248E+00 0.000E+00 4.752E-01 0.000E+00 1.796E-03 0.000E+00 0.000E+00 0.000E+00
9.375E-01 3.719E+00 4.392E+00 3.991E+00 5.980E-01 8.942E-02 4.519E+00 0.000E+00 3.740E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.625E-01 3.202E+00 3.606E+00 3.762E+00 5.136E-01 8.788E-02 4.195E+00 0.000E+00 3.887E-01 0.000E+00 1.756E-03 0.000E+00 0.000E+00 0.000E+00
9.875E-01 2.854E+00 3.287E+00 3.064E+00 5.616E-01 9.720E-02 3.442E+00 0.000E+00 3.347E-01 0.000E+00 5.212E-03 0.000E+00 0.000E+00 0.000E+00
1.012E+00 2.729E+00 2.858E+00 2.830E+00 4.700E-01 7.965E-02 3.129E+00 0.000E+00 3.251E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.038E+00 2.191E+00 2.603E+00 2.590E+00 3.761E-01 5.746E-02 2.843E+00 0.000E+00 2.285E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.062E+00 1.913E+00 2.102E+00 2.076E+00 3.289E-01 6.682E-02 2.557E+00 0.000E+00 2.056E-01 0.000E+00 1.682E-03 0.000E+00 0.000E+00 0.000E+00
1.087E+00 1.763E+00 2.148E+00 1.860E+00 2.985E-01 4.047E-02 2.180E+00 0.000E+00 2.088E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.113E+00 1.603E+00 1.759E+00 1.705E+00 2.589E-01 4.482E-02 1.941E+00 0.000E+00 1.562E-01 0.000E+00 3.296E-03 0.000E+00 0.000E+00 0.000E+00
1.137E+00 1.455E+00 1.646E+00 1.530E+00 2.329E-01 3.187E-02 1.819E+00 0.000E+00 1.615E-01 0.000E+00 1.631E-03 0.000E+00 0.000E+00 0.000E+00
1.163E+00 1.212E+00 1.436E+00 1.418E+00 2.463E-01 2.898E-02 1.582E+00 0.000E+00 1.387E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.188E+00 1.098E+00 1.201E+00 1.295E+00 2.046E-01 3.092E-02 1.295E+00 0.000E+00 1.042E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.213E+00 9.448E-01 1.117E+00 1.143E+00 1.547E-01 2.813E-02 1.213E+00 0.000E+00 1.065E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.238E+00 8.811E-01 1.018E+00 9.655E-01 1.455E-01 2.079E-02 1.114E+00 0.000E+00 9.688E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.262E+00 7.340E-01 8.511E-01 8.711E-01 1.344E-01 1.139E-02 8.634E-01 0.000E+00 8.409E-02 0.000E+00 3.104E-03 0.000E+00 0.000E+00 0.000E+00
1.288E+00 7.240E-01 7.913E-01 8.053E-01 1.123E-01 1.347E-02 8.771E-01 0.000E+00 6.823E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.312E+00 5.708E-01 6.508E-01 6.591E-01 9.300E-02 1.107E-02 7.341E-01 0.000E+00 6.588E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
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# Au+Au $E_{\text{lab}} = 11A$ GeV:

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+S0 a(L+S0) Xi- aXi- Om aOm)
1.250E-02 1.192E+03 1.420E+03 1.288E+03 6.600E+01 1.318E+01 1.696E+02 4.208E-03 3.387E+01 3.545E-03 3.887E-01 0.000E+00 2.137E-02 0.000E+00
3.750E-02 1.035E+03 1.236E+03 1.132E+03 5.834E+01 1.254E+01 1.629E+02 8.201E-03 3.106E+01 0.000E+00 3.579E-01 5.915E-03 1.404E-02 0.000E+00
6.250E-02 8.724E+02 1.040E+03 9.530E+02 5.201E+01 1.119E+01 1.564E+02 3.998E-03 2.876E+01 6.788E-03 3.107E-01 0.000E+00 1.384E-02 0.000E+00
8.750E-02 7.370E+02 8.681E+02 8.112E+02 4.748E+01 1.021E+01 1.472E+02 0.000E+00 2.664E+01 6.647E-03 2.881E-01 0.000E+00 1.364E-02 0.000E+00
1.125E-01 6.102E+02 7.261E+02 6.782E+02 4.131E+01 9.029E+00 1.372E+02 7.615E-03 2.414E+01 3.256E-03 2.298E-01 0.000E+00 6.725E-03 0.000E+00
1.375E-01 5.146E+02 5.991E+02 5.697E+02 3.686E+01 8.399E+00 1.293E+02 7.438E-03 2.192E+01 1.915E-02 2.286E-01 0.000E+00 6.632E-03 0.000E+00
1.625E-01 4.277E+02 5.034E+02 4.738E+02 3.256E+01 7.561E+00 1.198E+02 3.635E-03 2.017E+01 0.000E+00 1.733E-01 0.000E+00 2.180E-03 0.000E+00
1.875E-01 3.606E+02 4.186E+02 3.965E+02 2.912E+01 6.415E+00 1.110E+02 0.000E+00 1.768E+01 9.206E-03 1.225E-01 0.000E+00 6.453E-03 0.000E+00
2.125E-01 2.959E+02 3.477E+02 3.309E+02 2.496E+01 5.905E+00 1.028E+02 1.043E-02 1.577E+01 1.204E-02 1.126E-01 0.000E+00 6.368E-03 0.000E+00
2.375E-01 2.504E+02 2.896E+02 2.789E+02 2.224E+01 5.157E+00 9.452E+01 1.021E-02 1.381E+01 2.955E-03 1.262E-01 0.000E+00 4.190E-03 1.817E-03
2.625E-01 2.111E+02 2.458E+02 2.349E+02 1.992E+01 4.711E+00 8.592E+01 3.332E-03 1.301E+01 0.000E+00 1.040E-01 0.000E+00 2.068E-03 0.000E+00
2.875E-01 1.780E+02 2.072E+02 1.993E+02 1.740E+01 4.105E+00 7.921E+01 3.264E-03 1.149E+01 0.000E+00 1.098E-01 0.000E+00 4.083E-03 0.000E+00
3.125E-01 1.509E+02 1.741E+02 1.667E+02 1.523E+01 3.660E+00 7.185E+01 2.179E-02 1.031E+01 2.800E-03 8.111E-02 2.458E-03 2.016E-03 0.000E+00
3.375E-01 1.291E+02 1.461E+02 1.423E+02 1.312E+01 3.108E+00 6.405E+01 1.568E-02 9.335E+00 0.000E+00 8.230E-02 0.000E+00 0.000E+00 0.000E+00
3.625E-01 1.099E+02 1.246E+02 1.237E+02 1.253E+01 2.816E+00 5.900E+01 3.076E-03 8.095E+00 0.000E+00 8.346E-02 0.000E+00 3.932E-03 0.000E+00
3.875E-01 9.351E+01 1.066E+02 1.044E+02 1.058E+01 2.691E+00 5.263E+01 1.207E-02 6.915E+00 2.660E-03 4.934E-02 0.000E+00 5.827E-03 0.000E+00
4.125E-01 8.146E+01 9.261E+01 8.912E+01 9.244E+00 2.268E+00 4.748E+01 5.924E-03 6.490E+00 0.000E+00 5.094E-02 0.000E+00 1.919E-03 0.000E+00
4.375E-01 7.000E+01 8.002E+01 7.753E+01 8.305E+00 2.005E+00 4.309E+01 2.908E-03 5.711E+00 2.575E-03 5.250E-02 0.000E+00 3.792E-03 0.000E+00
4.625E-01 6.062E+01 6.824E+01 6.666E+01 7.101E+00 1.761E+00 3.856E+01 2.856E-03 4.853E+00 0.000E+00 3.376E-02 0.000E+00 0.000E+00 0.000E+00
4.875E-01 5.316E+01 5.978E+01 5.698E+01 6.590E+00 1.447E+00 3.446E+01 1.403E-02 4.662E+00 2.495E-03 3.551E-02 0.000E+00 1.852E-03 0.000E+00
5.125E-01 4.544E+01 5.168E+01 4.964E+01 5.520E+00 1.415E+00 3.139E+01 2.758E-03 3.800E+00 2.456E-03 1.970E-02 0.000E+00 1.831E-03 0.000E+00
5.375E-01 3.906E+01 4.467E+01 4.274E+01 5.123E+00 1.136E+00 2.775E+01 5.422E-03 3.619E+00 4.838E-03 2.591E-02 0.000E+00 0.000E+00 0.000E+00
5.625E-01 3.506E+01 3.832E+01 3.737E+01 4.365E+00 1.083E+00 2.511E+01 5.332E-03 3.150E+00 2.383E-03 2.130E-02 0.000E+00 1.790E-03 0.000E+00
5.875E-01 2.947E+01 3.362E+01 3.266E+01 3.891E+00 1.017E+00 2.233E+01 2.622E-03 2.783E+00 2.348E-03 1.892E-02 0.000E+00 0.000E+00 0.000E+00
6.125E-01 2.556E+01 2.958E+01 2.923E+01 3.470E+00 9.254E-01 1.963E+01 2.580E-03 2.492E+00 0.000E+00 1.453E-02 0.000E+00 0.000E+00 0.000E+00
6.375E-01 2.289E+01 2.535E+01 2.514E+01 3.044E+00 6.717E-01 1.815E+01 2.539E-03 2.265E+00 0.000E+00 1.844E-02 0.000E+00 0.000E+00 0.000E+00
6.625E-01 1.998E+01 2.249E+01 2.179E+01 2.888E+00 6.641E-01 1.629E+01 0.000E+00 2.033E+00 0.000E+00 1.820E-02 0.000E+00 0.000E+00 0.000E+00
6.875E-01 1.751E+01 1.970E+01 1.881E+01 2.394E+00 5.451E-01 1.412E+01 2.461E-03 1.792E+00 2.218E-03 1.598E-02 0.000E+00 0.000E+00 0.000E+00
7.125E-01 1.508E+01 1.658E+01 1.657E+01 2.261E+00 4.542E-01 1.278E+01 0.000E+00 1.547E+00 0.000E+00 1.578E-02 0.000E+00 0.000E+00 0.000E+00
7.375E-01 1.300E+01 1.509E+01 1.449E+01 2.024E+00 4.352E-01 1.131E+01 0.000E+00 1.301E+00 0.000E+00 9.744E-03 0.000E+00 0.000E+00 0.000E+00
7.625E-01 1.157E+01 1.331E+01 1.294E+01 1.713E+00 3.756E-01 1.012E+01 2.352E-03 1.229E+00 0.000E+00 7.702E-03 0.000E+00 0.000E+00 0.000E+00
7.875E-01 1.026E+01 1.176E+01 1.134E+01 1.548E+00 3.028E-01 9.073E+00 4.636E-03 1.063E+00 0.000E+00 5.707E-03 0.000E+00 1.626E-03 0.000E+00
8.125E-01 8.875E+00 1.030E+01 9.995E+00 1.399E+00 3.184E-01 7.998E+00 0.000E+00 9.417E-01 0.000E+00 5.640E-03 0.000E+00 0.000E+00 0.000E+00
8.375E-01 7.914E+00 8.541E+00 8.689E+00 1.199E+00 3.094E-01 7.453E+00 2.253E-03 7.965E-01 0.000E+00 5.575E-03 0.000E+00 1.594E-03 0.000E+00
8.625E-01 7.072E+00 7.908E+00 7.900E+00 9.701E-01 2.418E-01 6.576E+00 4.443E-03 7.076E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
8.875E-01 6.206E+00 6.674E+00 7.017E+00 1.005E+00 2.258E-01 5.732E+00 0.000E+00 6.608E-01 0.000E+00 1.816E-03 0.000E+00 0.000E+00 0.000E+00
9.125E-01 5.517E+00 6.062E+00 5.906E+00 8.617E-01 1.593E-01 5.036E+00 0.000E+00 4.989E-01 0.000E+00 3.591E-03 0.000E+00 0.000E+00 0.000E+00
9.375E-01 4.828E+00 5.404E+00 5.229E+00 8.159E-01 1.453E-01 4.705E+00 0.000E+00 5.026E-01 0.000E+00 3.552E-03 0.000E+00 0.000E+00 0.000E+00
9.625E-01 4.249E+00 4.605E+00 4.365E+00 6.619E-01 1.318E-01 4.180E+00 0.000E+00 4.061E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
9.875E-01 3.806E+00 4.197E+00 4.016E+00 5.589E-01 1.107E-01 3.827E+00 0.000E+00 3.651E-01 0.000E+00 1.737E-03 0.000E+00 0.000E+00 0.000E+00
1.012E+00 3.411E+00 3.518E+00 3.793E+00 5.390E-01 1.142E-01 3.216E+00 0.000E+00 2.875E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.038E+00 2.967E+00 3.318E+00 3.318E+00 4.858E-01 5.224E-02 2.823E+00 0.000E+00 3.065E-01 0.000E+00 1.700E-03 0.000E+00 0.000E+00 0.000E+00
1.062E+00 2.626E+00 2.829E+00 2.862E+00 4.549E-01 1.079E-01 2.409E+00 2.000E-03 2.791E-01 0.000E+00 1.682E-03 0.000E+00 0.000E+00 0.000E+00
1.087E+00 2.386E+00 2.565E+00 2.575E+00 3.617E-01 8.852E-02 2.216E+00 0.000E+00 2.251E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.113E+00 2.121E+00 2.415E+00 2.194E+00 3.336E-01 4.731E-02 1.988E+00 0.000E+00 2.136E-01 0.000E+00 1.648E-03 0.000E+00 0.000E+00 0.000E+00
1.137E+00 1.982E+00 2.051E+00 2.020E+00 2.501E-01 4.903E-02 1.873E+00 1.927E-03 1.935E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.163E+00 1.547E+00 1.741E+00 1.935E+00 2.656E-01 4.347E-02 1.603E+00 0.000E+00 1.984E-01 0.000E+00 3.229E-03 0.000E+00 0.000E+00 0.000E+00
1.188E+00 1.452E+00 1.675E+00 1.551E+00 2.189E-01 5.471E-02 1.509E+00 0.000E+00 1.493E-01 0.000E+00 1.598E-03 0.000E+00 0.000E+00 0.000E+00
1.213E+00 1.345E+00 1.422E+00 1.437E+00 2.063E-01 4.454E-02 1.362E+00 0.000E+00 1.323E-01 0.000E+00 3.165E-03 0.000E+00 0.000E+00 0.000E+00
1.238E+00 1.221E+00 1.224E+00 1.245E+00 1.779E-01 3.927E-02 1.125E+00 0.000E+00 1.394E-01 0.000E+00 3.134E-03 0.000E+00 0.000E+00 0.000E+00
1.262E+00 1.054E+00 1.080E+00 1.237E+00 1.344E-01 4.099E-02 9.943E-01 0.000E+00 1.043E-01 0.000E+00 3.104E-03 0.000E+00 0.000E+00 0.000E+00
1.288E+00 8.558E-01 1.072E+00 9.737E-01 1.280E-01 4.491E-02 8.555E-01 0.000E+00 8.488E-02 0.000E+00 3.074E-03 0.000E+00 0.000E+00 0.000E+00
1.312E+00 7.915E-01 8.825E-01 1.001E+00 1.129E-01 3.321E-02 8.780E-01 0.000E+00 6.094E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
```

Pb+Pb  $E_{\text{lab}} = 20A$  GeV:

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 1.641E+03 1.885E+03 1.758E+03 8.756E+01 2.541E+01 1.424E+02 2.104E-02 3.813E+01 4.253E-02 6.237E-01 6.026E-03 2.850E-02 2.375E-03
3.750E-02 1.418E+03 1.628E+03 1.551E+03 8.075E+01 2.332E+01 1.382E+02 4.100E-02 3.639E+01 2.774E-02 5.412E-01 0.000E+00 3.276E-02 0.000E+00
6.250E-02 1.206E+03 1.388E+03 1.308E+03 7.250E+01 2.214E+01 1.301E+02 6.797E-02 3.375E+01 3.055E-02 4.762E-01 2.904E-03 2.767E-02 0.000E+00
8.750E-02 1.017E+03 1.160E+03 1.121E+03 6.515E+01 1.959E+01 1.238E+02 6.241E-02 3.000E+01 4.321E-02 5.219E-01 1.141E-02 4.092E-02 0.000E+00
1.125E-01 8.476E+02 9.684E+02 9.264E+02 5.802E+01 1.813E+01 1.191E+02 7.615E-02 2.806E+01 3.907E-02 4.567E-01 2.802E-03 2.017E-02 4.483E-03
1.375E-01 7.195E+02 8.117E+02 7.841E+02 4.998E+01 1.669E+01 1.106E+02 9.670E-02 2.575E+01 7.020E-02 3.828E-01 5.508E-03 2.211E-02 4.421E-03
1.625E-01 6.000E+02 6.805E+02 6.544E+02 4.545E+01 1.478E+01 1.022E+02 8.723E-02 2.367E+01 2.816E-02 3.113E-01 8.122E-03 2.617E-02 0.000E+00
1.875E-01 5.089E+02 5.715E+02 5.532E+02 3.980E+01 1.368E+01 9.664E+01 8.174E-02 2.137E+01 4.603E-02 3.062E-01 2.662E-03 2.366E-02 0.000E+00
2.125E-01 4.221E+02 4.783E+02 4.694E+02 3.514E+01 1.153E+01 8.859E+01 1.008E-01 1.889E+01 2.108E-02 2.566E-01 0.000E+00 1.486E-02 2.123E-03
2.375E-01 3.564E+02 4.027E+02 3.904E+02 3.056E+01 1.044E+01 8.212E+01 9.528E-02 1.718E+01 1.773E-02 2.499E-01 2.576E-03 2.514E-02 0.000E+00
2.625E-01 3.074E+02 3.429E+02 3.303E+02 2.683E+01 9.375E+00 7.561E+01 5.331E-02 1.549E+01 2.321E-02 2.054E-01 2.536E-03 1.241E-02 2.068E-03
2.875E-01 2.575E+02 2.890E+02 2.822E+02 2.396E+01 8.374E+00 6.923E+01 6.854E-02 1.438E+01 2.280E-02 1.872E-01 0.000E+00 1.021E-02 4.403E+00
3.125E-01 2.192E+02 2.445E+02 2.371E+02 2.105E+01 7.092E+00 6.269E+01 3.199E-02 1.250E+01 4.760E-02 1.843E-01 0.000E+00 6.047E-03 0.000E+00
3.375E-01 1.886E+02 2.099E+02 2.044E+02 1.878E+01 6.749E+00 5.799E+01 7.526E-02 1.115E+01 3.302E-02 1.307E-01 2.421E-03 5.972E-03 0.000E+00
3.625E-01 1.620E+02 1.767E+02 1.757E+02 1.634E+01 6.118E+00 5.253E+01 3.691E-02 1.003E+01 4.329E-02 1.431E-01 0.000E+00 1.376E-02 0.000E+00
3.875E-01 1.397E+02 1.533E+02 1.495E+02 1.418E+01 5.296E+00 4.757E+01 2.414E-02 8.918E+00 2.927E-02 1.081E-01 0.000E+00 1.360E-02 0.000E+00
4.125E-01 1.197E+02 1.323E+02 1.312E+02 1.304E+01 4.713E+00 4.366E+01 4.739E-02 8.139E+00 2.355E-02 1.019E-01 0.000E+00 7.676E-03 0.000E+00
4.375E-01 1.039E+02 1.150E+02 1.122E+02 1.177E+01 4.221E+00 3.959E+01 5.816E-02 7.163E+00 1.802E-02 7.760E-02 2.282E-03 1.138E-02 0.000E+00
4.625E-01 9.000E+01 9.879E+01 9.675E+01 1.002E+01 3.350E+00 3.570E+01 4.284E-02 6.378E+00 2.281E-02 7.876E-02 0.000E+00 9.370E-03 0.000E+00
4.875E-01 7.690E+01 8.478E+01 8.324E+01 9.353E+00 3.179E+00 3.211E+01 3.087E-02 5.777E+00 1.497E-02 5.992E-02 0.000E+00 9.261E-03 0.000E+00
5.125E-01 6.650E+01 7.370E+01 7.338E+01 7.642E+00 2.770E+00 2.867E+01 2.758E-02 5.077E+00 2.211E-02 4.596E-02 0.000E+00 5.493E-03 0.000E+00
5.375E-01 5.726E+01 6.406E+01 6.321E+01 7.042E+00 2.734E+00 2.574E+01 3.795E-02 4.560E+00 4.838E-03 6.046E-02 0.000E+00 3.621E-03 0.000E+00
5.625E-01 5.166E+01 5.682E+01 5.549E+01 6.406E+00 2.283E+00 2.295E+01 2.399E-02 4.037E+00 7.149E-03 5.752E-02 0.000E+00 1.790E-03 0.000E+00
5.875E-01 4.500E+01 4.848E+01 4.840E+01 5.407E+00 2.049E+00 2.082E+01 1.573E-02 3.579E+00 9.392E-03 4.415E-02 2.102E-03 7.081E-03 0.000E+00
6.125E-01 3.892E+01 4.239E+01 4.255E+01 5.068E+00 1.959E+00 1.929E+01 1.290E-02 2.955E+00 4.628E-03 2.698E-02 0.000E+00 0.000E+00 0.000E+00
6.375E-01 3.366E+01 3.811E+01 3.699E+01 4.366E+00 1.580E+00 1.687E+01 2.285E-02 2.867E+00 4.562E-03 3.688E-02 0.000E+00 0.000E+00 0.000E+00
6.625E-01 2.983E+01 3.267E+01 3.263E+01 3.808E+00 1.377E+00 1.528E+01 1.500E-02 2.649E+00 4.498E-03 1.618E-02 0.000E+00 5.140E-03 0.000E+00
6.875E-01 2.574E+01 2.816E+01 2.774E+01 3.345E+00 1.249E+00 1.360E+01 1.969E-02 2.335E+00 2.218E-03 1.598E-02 1.998E+03 1.695E-03 0.000E+00
7.125E-01 2.292E+01 2.568E+01 2.535E+01 3.047E+00 1.058E+00 1.251E+01 9.694E-03 1.925E+00 1.313E-02 1.381E-02 0.000E+00 0.000E+00 0.000E+00
7.375E-01 2.041E+01 2.227E+01 2.203E+01 2.758E+00 8.380E-01 1.126E+01 1.194E-02 1.692E+00 4.316E-03 2.533E-02 1.949E-03 1.660E-03 0.000E+00
7.625E-01 1.775E+01 1.926E+01 1.941E+01 2.321E+00 9.423E-01 9.830E+00 9.409E-03 1.525E+00 4.259E-03 2.118E-02 1.925E-03 1.643E-03 0.000E+00
7.875E-01 1.558E+01 1.781E+01 1.734E+01 2.119E+00 7.897E-01 8.832E+00 6.955E-03 1.395E+00 2.101E-03 1.712E-02 0.000E+00 0.000E+00 0.000E+00
8.125E-01 1.357E+01 1.528E+01 1.505E+01 1.855E+00 6.858E-01 7.975E+00 9.140E-03 1.178E+00 0.000E+00 1.316E-02 0.000E+00 0.000E+00 0.000E+00
8.375E-01 1.225E+01 1.358E+01 1.306E+01 1.920E+00 6.459E-01 7.103E+00 2.253E-03 1.134E+00 0.000E+00 1.487E-02 0.000E+00 0.000E+00 0.000E+00
8.625E-01 1.088E+01 1.164E+01 1.184E+01 1.389E+00 5.485E-01 6.274E+00 1.555E-02 9.725E-01 2.022E-03 1.286E-02 0.000E+00 0.000E+00 0.000E+00
8.875E-01 9.981E+00 1.005E+01 1.041E+01 1.315E+00 5.299E-01 5.857E+00 4.382E-03 8.685E-01 1.997E-03 1.635E-02 0.000E+00 0.000E+00 0.000E+00
9.125E-01 8.537E+00 9.462E+00 8.933E+00 1.240E+00 3.925E-01 5.266E+00 2.162E-03 7.927E-01 1.972E-03 8.979E-03 0.000E+00 1.548E-03 0.000E+00
9.375E-01 7.241E+00 8.145E+00 8.264E+00 1.053E+00 4.108E-01 4.366E+00 4.266E-03 7.246E-01 5.844E-03 1.776E-03 0.000E+00 0.000E+00 0.000E+00
9.625E-01 6.990E+00 7.397E+00 7.506E+00 9.228E-01 3.405E-01 4.003E+00 0.000E+00 6.505E-01 7.698E-03 3.513E-03 0.000E+00 0.000E+00 0.000E+00
9.875E-01 5.900E+00 6.532E+00 6.546E+00 8.532E-01 3.078E-01 3.731E+00 0.000E+00 5.534E-01 0.000E+00 5.212E-03 0.000E+00 3.008E-03 0.000E+00
1.012E+00 5.226E+00 5.552E+00 6.032E+00 6.930E-01 2.602E-01 3.173E+00 8.203E-03 4.698E-01 0.000E+00 5.156E-03 0.000E+00 0.000E+00 0.000E+00
1.038E+00 4.505E+00 5.288E+00 5.033E+00 6.347E-01 2.063E-01 2.780E+00 4.050E-03 4.291E-01 0.000E+00 5.101E-03 0.000E+00 0.000E+00 0.000E+00
1.062E+00 4.385E+00 4.775E+00 4.625E+00 5.834E-01 2.082E-01 2.551E+00 3.999E-03 4.003E-01 0.000E+00 5.047E-03 0.000E+00 0.000E+00 0.000E+00
1.087E+00 3.698E+00 4.047E+00 3.976E+00 5.413E-01 2.276E-01 2.232E+00 1.975E-03 3.340E-01 0.000E+00 4.995E-03 0.000E+00 0.000E+00 0.000E+00
1.113E+00 3.141E+00 3.483E+00 3.554E+00 4.407E-01 1.867E-01 2.066E+00 1.951E-03 3.267E-01 0.000E+00 1.648E-03 0.000E+00 0.000E+00 0.000E+00
1.137E+00 2.898E+00 3.127E+00 3.227E+00 3.996E-01 1.373E-01 1.866E+00 0.000E+00 2.858E-01 0.000E+00 3.262E-03 0.000E+00 0.000E+00 0.000E+00
1.163E+00 2.553E+00 2.811E+00 2.922E+00 3.550E-01 1.207E-01 1.615E+00 1.904E-03 2.598E-01 1.756E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.188E+00 2.287E+00 2.601E+00 2.659E+00 3.092E-01 1.189E-01 1.402E+00 1.882E-03 1.980E-01 0.000E+00 1.598E-03 0.000E+00 0.000E+00 0.000E+00
1.213E+00 2.106E+00 2.372E+00 2.248E+00 3.328E-01 1.149E-01 1.401E+00 1.860E-03 1.993E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.238E+00 1.881E+00 1.925E+00 1.951E+00 2.957E-01 1.016E-01 1.210E+00 0.000E+00 1.836E-01 1.700E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.262E+00 1.805E+00 1.951E+00 1.862E+00 2.414E-01 7.743E-02 1.056E+00 0.000E+00 1.564E-01 0.000E+00 0.000E+00 0.000E+00 1.363E-03 0.000E+00
1.288E+00 1.510E+00 1.647E+00 1.653E+00 1.931E-01 8.083E-02 9.562E-01 0.000E+00 1.331E-01 1.664E-03 3.074E-03 0.000E+00 0.000E+00 0.000E+00
1.312E+00 1.349E+00 1.365E+00 1.464E+00 1.860E-01 5.978E-02 7.963E-01 0.000E+00 1.235E-01 0.000E+00 1.522E-03 0.000E+00 0.000E+00 0.000E+00
```

Pb+Pb  $E_{\text{lab}} = 30A$  GeV:

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+S0 a(L+S0) Xi- aXi- Om aOm)
1.250E-02 1.913E+03 2.172E+03 2.062E+03 9.946E+01 3.492E+01 1.260E+02 4.629E-02 3.844E+01 1.063E-01 7.473E-01 2.109E-02 5.165E-02 4.749E-03
3.750E-02 1.675E+03 1.874E+03 1.794E+03 8.972E+01 3.269E+01 1.185E+02 1.640E-01 3.640E+01 1.248E-01 7.009E-01 2.070E-02 6.428E-02 4.680E-03
6.250E-02 1.407E+03 1.571E+03 1.538E+03 8.150E+01 3.028E+01 1.139E+02 1.519E-01 3.383E+01 1.561E-01 6.853E-01 1.162E-02 5.045E-02 2.306E-03
8.750E-02 1.186E+03 1.334E+03 1.293E+03 7.313E+01 2.808E+01 1.076E+02 2.184E-01 3.091E+01 1.329E-01 6.103E-01 1.426E-02 3.694E-02 2.273E-03
1.125E-01 9.980E+02 1.114E+03 1.386E+03 6.393E+01 2.550E+01 1.023E+02 2.285E-01 2.841E+01 1.237E-01 5.632E-01 2.802E-03 3.652E-02 0.000E+00
1.375E-01 8.514E+02 9.369E+02 9.144E+02 5.686E+01 2.279E+01 9.711E+01 2.752E-01 2.573E+01 1.085E-01 5.067E-01 2.478E-02 2.347E-02 8.842E-03
1.625E-01 7.109E+02 7.931E+02 7.669E+02 5.170E+01 2.069E+01 8.961E+01 1.926E-01 2.337E+01 1.126E-01 4.115E-01 1.624E-02 5.177E-02 0.000E+00
1.875E-01 6.020E+02 6.657E+02 6.491E+02 4.570E+01 1.814E+01 8.395E+01 2.168E-01 2.170E+01 1.197E-01 3.275E-01 1.331E-02 3.178E-02 0.000E+00
2.125E-01 5.113E+02 5.613E+02 5.454E+02 3.935E+01 1.697E+01 7.813E+01 2.538E-01 1.968E+01 1.204E-01 2.959E-01 1.833E-02 2.095E-02 2.123E-03
2.375E-01 4.294E+02 4.705E+02 4.651E+02 3.535E+01 1.463E+01 7.330E+01 2.178E-01 1.760E+01 8.570E-02 2.989E-01 1.288E-02 1.382E-02 4.190E-03
2.625E-01 3.656E+02 4.006E+02 3.919E+02 3.098E+01 1.298E+01 6.620E+01 1.733E-01 1.600E+01 1.074E-01 2.307E-01 1.014E-02 1.538E-02 6.203E-03
2.875E-01 3.102E+02 3.403E+02 3.356E+02 2.713E+01 1.162E+01 5.981E+01 1.795E-01 1.444E+01 9.975E-02 2.197E-01 1.248E-02 2.562E-02 4.083E-03
3.125E-01 2.653E+02 2.904E+02 2.853E+02 2.414E+01 1.019E+01 5.649E+01 1.311E-01 1.287E+01 9.240E-02 2.114E-01 0.000E+00 1.338E-02 2.016E-03
3.375E-01 2.254E+02 2.493E+02 2.464E+02 2.157E+01 9.087E+00 5.103E+01 1.505E-01 1.174E+01 3.302E-02 1.815E-01 2.421E-03 1.159E-02 0.000E+00
3.625E-01 1.950E+02 2.134E+02 2.139E+02 1.919E+01 8.061E+00 4.682E+01 1.230E-01 1.049E+01 5.681E-02 1.621E-01 0.000E+00 9.833E-03 1.966E-03
3.875E-01 1.659E+02 1.829E+02 1.798E+02 1.734E+01 6.834E+00 4.284E+01 1.237E-01 9.493E+00 5.055E-02 1.551E-01 2.349E-03 8.111E-03 1.942E-03
4.125E-01 1.462E+02 1.555E+02 1.589E+02 1.443E+01 6.482E+00 3.931E+01 1.451E-01 8.521E+00 4.972E-02 1.227E-01 2.315E-03 1.285E-02 1.919E-03
4.375E-01 1.244E+02 1.370E+02 1.367E+02 1.299E+01 5.780E+00 3.560E+01 9.015E-02 7.547E+00 4.635E-02 1.369E-01 4.565E-03 1.272E-02 1.896E-03
4.625E-01 1.082E+02 1.181E+02 1.185E+02 1.182E+01 5.470E+00 3.237E+01 1.257E-01 6.781E+00 6.082E-02 1.170E-01 9.001E-03 9.446E-03 0.000E+00
4.875E-01 9.406E+01 1.033E+02 1.024E+02 1.023E+01 4.495E+00 2.908E+01 7.857E-02 6.084E+00 3.492E-02 6.657E-02 4.438E-03 3.118E-03 0.000E+00
5.125E-01 8.309E+01 8.932E+01 8.791E+01 8.974E+00 3.923E+00 2.646E+01 9.652E-02 5.514E+00 4.176E-02 5.910E-02 0.000E+00 3.088E-03 0.000E+00
5.375E-01 7.124E+01 7.725E+01 7.811E+01 8.027E+00 3.575E+00 2.374E+01 1.003E-01 4.657E+00 4.838E-02 6.910E-02 0.000E+00 1.223E-02 0.000E+00
5.625E-01 6.192E+01 6.752E+01 6.831E+01 6.985E+00 3.313E+00 2.166E+01 6.931E-02 4.416E+00 3.813E-02 3.835E-02 4.261E-03 7.573E-03 0.000E+00
5.875E-01 5.538E+01 6.016E+01 5.882E+01 6.325E+00 2.811E+00 1.938E+01 6.555E-02 3.776E+00 3.053E-02 3.995E-02 2.102E-03 3.001E-03 0.000E+00
6.125E-01 4.786E+01 5.134E+01 5.127E+01 5.686E+00 2.437E+00 1.744E+01 6.192E-02 3.497E+00 1.851E-02 4.773E-02 2.075E-03 1.487E-03 0.000E+00
6.375E-01 4.212E+01 4.535E+01 4.520E+01 5.038E+00 2.277E+00 1.569E+01 5.078E-02 3.139E+00 2.281E-02 3.892E-02 4.097E-03 2.946E-03 1.732E-03
6.625E-01 3.667E+01 3.917E+01 4.022E+01 4.164E+00 1.965E+00 1.423E+01 3.999E-02 2.748E+00 2.249E-02 3.641E-02 0.000E+00 1.459E-03 1.713E-03
6.875E-01 3.193E+01 3.471E+01 3.521E+01 4.140E+00 1.784E+00 1.250E+01 3.445E-02 2.449E+00 2.218E-02 3.196E-02 0.000E+00 2.892E-03 0.000E+00
7.125E-01 2.905E+01 2.982E+01 3.075E+01 3.441E+00 1.634E+00 1.147E+01 3.635E-02 2.181E+00 1.313E-02 3.157E-02 3.946E-03 0.000E+00 0.000E+00
7.375E-01 2.506E+01 2.681E+01 2.728E+01 2.952E+00 1.393E+00 1.006E+01 2.865E-02 1.957E+00 1.079E-02 2.339E-02 1.949E-03 2.841E-03 0.000E+00
7.625E-01 2.209E+01 2.388E+01 2.389E+01 2.900E+00 1.210E+00 9.315E+00 2.117E-02 1.721E+00 2.129E-03 3.081E-02 0.000E+00 1.408E-03 0.000E+00
7.875E-01 2.005E+01 2.091E+01 2.148E+01 2.438E+00 1.067E+00 8.355E+00 2.782E-02 1.507E+00 1.051E-02 1.902E-02 1.902E-03 0.000E+00 0.000E+00
8.125E-01 1.718E+01 1.908E+01 1.894E+01 2.235E+00 9.981E-01 7.161E+00 2.514E-02 1.435E+00 1.659E-02 2.068E-02 0.000E+00 0.000E+00 0.000E+00
8.375E-01 1.529E+01 1.650E+01 1.688E+01 2.043E+00 8.922E-01 6.502E+00 2.929E-02 1.227E+00 8.190E-03 1.858E-02 0.000E+00 1.372E-03 0.000E+00
8.625E-01 1.348E+01 1.442E+01 1.464E+01 1.737E+00 7.696E-01 5.734E+00 2.444E-02 1.118E+00 8.087E-03 1.653E-02 0.000E+00 5.441E-03 0.000E+00
8.875E-01 1.205E+01 1.270E+01 1.267E+01 1.598E+00 7.586E-01 5.568E+00 1.753E-02 1.006E+00 5.990E-03 7.264E-03 0.000E+00 1.349E-03 0.000E+00
9.125E-01 1.032E+01 1.185E+01 1.135E+01 1.436E+00 6.683E-01 4.950E+00 1.081E-02 9.051E-01 1.775E-02 1.796E-02 0.000E+00 0.000E+00 0.000E+00
9.375E-01 9.755E+00 9.915E+00 1.013E+01 1.271E+00 5.812E-01 4.121E+00 6.398E-03 7.869E-01 3.896E-03 8.879E-03 0.000E+00 0.000E+00 0.000E+00
9.625E-01 8.342E+00 8.585E+00 8.803E+00 1.096E+00 5.218E-01 3.927E+00 4.209E-03 6.659E-01 7.698E-03 8.782E-03 1.756E-03 1.315E-03 0.000E+00
9.875E-01 7.428E+00 7.684E+00 7.908E+00 8.667E-01 4.536E-01 3.467E+00 1.246E-02 6.865E-01 0.000E+00 5.212E-03 0.000E+00 0.000E+00 0.000E+00
1.012E+00 6.634E+00 7.054E+00 7.367E+00 8.019E-01 3.160E-01 2.910E+00 2.051E-03 5.300E-01 1.879E-03 5.156E-03 0.000E+00 1.294E-03 0.000E+00
1.038E+00 5.928E+00 6.472E+00 6.428E+00 7.600E-01 3.004E-01 2.825E+00 4.050E-03 4.532E-01 3.715E-03 5.101E-03 0.000E+00 1.284E-03 0.000E+00
1.062E+00 5.155E+00 5.664E+00 5.644E+00 6.502E-01 2.955E-01 2.449E+00 1.400E-02 4.811E-01 1.836E-03 1.514E-02 0.000E+00 0.000E+00 0.000E+00
1.087E+00 4.586E+00 4.876E+00 5.219E+00 6.525E-01 3.060E-01 2.247E+00 3.950E-03 4.629E-01 3.631E-03 3.330E-03 0.000E+00 0.000E+00 0.000E+00
1.113E+00 4.098E+00 4.488E+00 4.501E+00 5.826E-01 2.614E-01 1.923E+00 5.852E-03 3.303E-01 0.000E+00 1.648E-03 1.648E-03 0.000E+00 0.000E+00
1.137E+00 3.666E+00 3.813E+00 4.045E+00 5.345E-01 2.648E-01 1.754E+00 1.927E-03 3.302E-01 0.000E+00 6.524E-03 0.000E+00 0.000E+00 0.000E+00
1.163E+00 3.337E+00 3.411E+00 3.426E+00 4.854E-01 1.811E-01 1.632E+00 1.904E-03 2.563E-01 3.511E-03 3.229E-03 0.000E+00 0.000E+00 0.000E+00
1.188E+00 2.972E+00 3.241E+00 3.259E+00 3.711E-01 1.832E-01 1.451E+00 1.882E-03 2.448E-01 3.473E-03 3.197E-03 0.000E+00 0.000E+00 0.000E+00
1.213E+00 2.760E+00 2.757E+00 2.737E+00 3.703E-01 1.805E-01 1.259E+00 3.720E-03 2.336E-01 1.718E-03 1.583E-03 0.000E+00 1.215E-03 0.000E+00
1.238E+00 2.428E+00 2.469E+00 2.475E+00 3.373E-01 1.571E-01 1.160E+00 1.839E-03 1.955E-01 3.399E-03 1.567E-03 0.000E+00 0.000E+00 0.000E+00
1.262E+00 2.171E+00 2.248E+00 2.322E+00 3.052E-01 1.457E-01 1.011E+00 0.000E+00 0.000E+00 1.682E-03 1.552E-03 1.197E-03 0.000E+00 0.000E+00
1.288E+00 1.936E+00 2.015E+00 2.144E+00 2.694E-01 1.145E-01 9.472E-01 1.797E-03 1.564E-01 0.000E+00 1.537E-03 0.000E+00 0.000E+00 0.000E+00
1.312E+00 1.644E+00 1.826E+00 1.848E+00 2.170E-01 1.063E-01 7.732E-01 1.777E-03 1.697E-01 0.000E+00 4.567E-03 0.000E+00 0.000E+00 0.000E+00
```



Pb+Pb  $E_{\text{lab}} = 40A$  GeV:

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 2.156E+03 2.380E+03 2.278E+03 1.058E+02 4.357E+01 1.106E+02 2.609E-01 3.793E+01 2.056E-01 8.618E-01 2.712E-02 1.116E-01 1.425E-02
3.750E-02 1.864E+03 2.059E+03 2.026E+03 9.592E+01 4.078E+01 1.073E+02 2.624E-01 3.578E+01 2.046E-01 7.956E-01 3.845E-02 7.020E-02 0.000E+00
6.250E-02 1.577E+03 1.740E+03 1.713E+03 8.712E+01 3.738E+01 1.027E+02 3.238E-01 3.326E+01 2.274E-01 7.521E-01 2.613E-02 9.455E-02 9.225E-03
8.750E-02 1.331E+03 1.469E+03 1.434E+03 8.004E+01 3.354E+01 9.829E+01 3.745E-01 3.032E+01 2.592E-01 5.733E-01 3.422E-02 6.365E-02 9.093E-03
1.125E-01 1.121E+03 1.233E+03 1.210E+03 7.087E+01 3.164E+01 9.315E+01 3.655E-01 2.798E+01 2.149E-01 5.660E-01 2.802E-02 6.949E-02 8.966E-03
1.375E-01 9.445E+02 1.032E+03 1.018E+03 6.235E+01 2.855E+01 8.763E+01 3.794E-01 2.570E+01 2.010E-01 5.205E-01 1.652E-02 4.421E-02 8.842E-03
1.625E-01 8.000E+02 8.687E+02 8.573E+02 5.512E+01 2.458E+01 8.169E+01 3.925E-01 2.372E+01 1.596E-01 5.008E-01 1.624E-02 6.323E-02 4.361E-03
1.875E-01 6.753E+02 7.340E+02 7.257E+02 4.948E+01 2.267E+01 7.609E+01 3.696E-01 2.148E+01 2.332E-01 4.978E-01 3.727E-02 4.302E-02 2.151E-03
2.125E-01 5.657E+02 6.189E+02 6.154E+02 4.419E+01 2.044E+01 7.197E+01 3.755E-01 1.965E+01 1.897E-01 3.195E-01 2.357E-02 4.033E-02 0.000E+00
2.375E-01 4.821E+02 5.230E+02 5.190E+02 3.928E+01 1.819E+01 6.602E+01 3.777E-01 1.783E+01 1.950E-01 2.963E-01 2.061E-02 5.237E-02 2.095E-03
2.625E-01 4.119E+02 4.427E+02 4.443E+02 3.471E+01 1.607E+01 6.080E+01 3.365E-01 1.632E+01 1.828E-01 3.043E-01 2.789E-02 2.068E-02 4.135E-03
2.875E-01 3.533E+02 3.825E+02 3.819E+02 2.960E+01 1.426E+01 5.384E+01 3.884E-01 1.475E+01 1.425E-01 2.147E-01 2.995E-02 2.041E-02 2.041E-03
3.125E-01 2.991E+02 3.229E+02 3.197E+02 2.660E+01 1.248E+01 5.243E+01 3.455E-01 1.319E+01 1.428E-01 2.482E-01 2.458E-03 4.837E-02 2.016E-03
3.375E-01 2.564E+02 2.762E+02 2.767E+02 2.380E+01 1.155E+01 4.796E+01 3.575E-01 1.152E+01 1.459E-01 1.936E-01 1.694E-02 1.991E-02 3.981E-03
3.625E-01 2.206E+02 2.364E+02 2.397E+02 2.091E+01 1.008E+01 4.352E+01 3.260E-01 1.067E+01 1.028E-01 1.979E-01 2.385E-03 1.180E-02 3.932E-03
3.875E-01 1.909E+02 2.062E+02 2.061E+02 1.801E+01 8.935E+00 3.957E+01 2.444E-01 9.314E+00 1.038E-01 1.316E-01 2.349E-03 7.769E-03 0.000E+00
4.125E-01 1.667E+02 1.782E+02 1.765E+02 1.576E+01 8.115E+00 3.602E+01 2.606E-01 8.670E+00 9.421E-02 9.957E-02 6.946E-03 1.151E-02 1.919E-03
4.375E-01 1.416E+02 1.525E+02 1.521E+02 1.404E+01 7.115E+00 3.313E+01 1.948E-01 7.629E+00 7.982E-02 1.255E-01 6.847E-03 1.517E-02 0.000E+00
4.625E-01 1.219E+02 1.327E+02 1.322E+02 1.275E+01 6.411E+00 2.993E+01 1.685E-01 6.804E+00 8.869E-02 1.193E-01 0.000E+00 1.687E-02 1.874E-03
4.875E-01 1.076E+02 1.139E+02 1.158E+02 1.121E+01 5.188E+00 2.711E+01 1.964E-01 6.089E+00 7.733E-02 1.021E-01 1.110E-02 9.261E-03 0.000E+00
5.125E-01 9.361E+01 9.970E+01 1.002E+02 9.784E+00 5.071E+00 2.434E+01 1.020E-01 5.703E+00 5.895E-02 1.029E-01 8.755E-03 7.324E-03 1.831E-03
5.375E-01 8.354E+01 8.725E+01 8.916E+01 9.047E+00 4.553E+00 2.200E+01 1.355E-01 4.916E+00 6.774E-02 8.205E-02 0.000E+00 1.448E-02 1.810E-03
5.625E-01 7.141E+01 7.619E+01 7.748E+01 8.102E+00 3.983E+00 1.987E+01 1.440E-01 4.592E+00 6.911E-02 6.178E-02 4.261E-03 3.580E-03 0.000E+00
5.875E-01 6.156E+01 6.662E+01 6.771E+01 6.831E+00 3.547E+00 1.824E+01 1.023E-01 4.015E+00 3.992E-02 5.256E-02 2.102E-03 7.081E-03 0.000E+00
6.125E-01 5.494E+01 5.768E+01 5.922E+01 5.997E+00 3.109E+00 1.607E+01 1.032E-01 3.598E+00 4.165E-02 6.226E-02 2.075E-03 1.051E-02 1.751E-03
6.375E-01 4.773E+01 5.047E+01 5.105E+01 5.289E+00 2.849E+00 1.446E+01 8.378E-02 3.159E+00 4.334E-02 5.531E-02 0.000E+00 8.660E-03 0.000E+00
6.625E-01 4.163E+01 4.482E+01 4.510E+01 4.825E+00 2.504E+00 1.303E+01 8.997E-02 2.820E+00 4.048E-02 2.630E-02 0.000E+00 1.713E-03 1.713E-03
6.875E-01 3.640E+01 3.989E+01 4.021E+01 4.185E+00 1.960E+00 1.196E+01 5.414E-02 2.464E+00 2.883E-02 4.594E-02 0.000E+00 6.781E-03 0.000E+00
7.125E-01 3.203E+01 3.481E+01 3.525E+01 3.773E+00 1.959E+00 1.080E+01 5.332E-02 2.166E+00 1.969E-02 3.748E-02 1.973E-03 1.678E-03 0.000E+00
7.375E-01 2.884E+01 3.019E+01 3.131E+01 3.391E+00 1.721E+00 9.841E+00 6.685E-02 1.858E+00 1.942E-02 1.949E-02 1.949E-03 0.000E+00 0.000E+00
7.625E-01 2.564E+01 2.732E+01 2.742E+01 3.142E+00 1.423E+00 8.539E+00 5.881E-02 1.744E+00 1.491E-02 2.696E-02 1.925E-03 4.929E-03 0.000E+00
7.875E-01 2.174E+01 2.361E+01 2.444E+01 2.716E+00 1.323E+00 7.495E+00 4.173E-02 1.662E+00 1.681E-02 2.663E-02 0.000E+00 3.253E-03 0.000E+00
8.125E-01 1.923E+01 2.047E+01 2.101E+01 2.400E+00 1.228E+00 6.887E+00 4.342E-02 1.342E+00 1.659E-02 1.692E-02 1.880E-03 3.220E-03 0.000E+00
8.375E-01 1.734E+01 1.854E+01 1.844E+01 2.106E+00 1.121E+00 6.171E+00 3.830E-02 1.274E+00 8.190E-03 2.416E-02 0.000E+00 1.594E-03 0.000E+00
8.625E-01 1.563E+01 1.625E+01 1.648E+01 1.937E+00 9.259E-01 5.601E+00 4.221E-02 1.262E+00 1.820E-02 2.388E-02 0.000E+00 3.156E-03 0.000E+00
8.875E-01 1.391E+01 1.428E+01 1.511E+01 1.749E+00 8.426E-01 5.048E+00 4.163E-02 1.066E+00 5.990E-03 1.998E-02 0.000E+00 0.000E+00 0.000E+00
9.125E-01 1.220E+01 1.326E+01 1.287E+01 1.504E+00 7.565E-01 4.459E+00 2.810E-02 8.952E-01 1.183E-02 8.979E-03 0.000E+00 3.095E-03 0.000E+00
9.375E-01 1.061E+01 1.140E+01 1.202E+01 1.436E+00 6.119E-01 3.997E+00 1.706E-02 8.279E-01 5.844E-03 5.327E-03 0.000E+00 1.533E-03 0.000E+00
9.625E-01 9.705E+00 9.876E+00 1.025E+01 1.211E+00 6.591E-01 3.681E+00 1.473E-02 7.698E-01 1.924E-02 1.405E-02 0.000E+00 0.000E+00 0.000E+00
9.875E-01 8.711E+00 9.038E+00 9.272E+00 1.112E+00 5.535E-01 3.413E+00 1.662E-02 7.074E-01 5.705E-03 1.042E-02 0.000E+00 0.000E+00 0.000E+00
1.012E+00 7.934E+00 8.087E+00 8.268E+00 1.065E+00 5.124E-01 2.820E+00 1.846E-02 6.089E-01 5.638E-03 2.062E-02 5.156E-03 1.490E-03 0.000E+00
1.038E+00 7.030E+00 7.095E+00 7.132E+00 9.220E-01 4.727E-01 2.669E+00 1.417E-02 4.811E-01 7.430E-03 6.801E-03 0.000E+00 0.000E+00 0.000E+00
1.062E+00 5.901E+00 6.534E+00 6.567E+00 7.992E-01 3.598E-01 2.465E+00 5.999E-03 5.013E-01 9.181E-03 5.047E-03 0.000E+00 1.463E-03 0.000E+00
1.087E+00 5.431E+00 5.617E+00 5.852E+00 7.259E-01 3.718E-01 2.133E+00 5.924E-03 4.157E-01 3.631E-03 3.330E-03 0.000E+00 1.450E-03 0.000E+00
1.113E+00 4.629E+00 5.128E+00 5.185E+00 6.573E-01 3.262E-01 1.923E+00 1.951E-03 3.590E-01 5.385E-03 1.648E-03 0.000E+00 0.000E+00 0.000E+00
1.137E+00 4.171E+00 4.478E+00 4.588E+00 5.835E-01 2.819E-01 1.688E+00 1.156E-02 3.532E-01 1.775E-03 4.893E-03 0.000E+00 0.000E+00 0.000E+00
1.163E+00 3.854E+00 4.060E+00 4.208E+00 4.998E-01 2.801E-01 1.594E+00 9.522E-03 3.020E-01 7.022E-03 3.229E-03 0.000E+00 1.411E-03 0.000E+00
1.188E+00 3.353E+00 3.479E+00 3.769E+00 4.900E-01 2.189E-01 1.344E+00 9.410E-03 2.744E-01 1.736E-03 1.598E-03 0.000E+00 0.000E+00 0.000E+00
1.213E+00 2.906E+00 3.178E+00 3.225E+00 4.899E-01 1.828E-01 1.215E+00 5.580E-03 2.216E-01 0.000E+00 6.330E-03 0.000E+00 0.000E+00 0.000E+00
1.238E+00 2.611E+00 2.754E+00 3.115E+00 3.558E-01 1.964E-01 1.105E+00 5.516E-03 1.887E-01 1.700E-03 6.268E-03 0.000E+00 0.000E+00 0.000E+00
1.262E+00 2.479E+00 2.568E+00 2.656E+00 3.234E-01 1.731E-01 1.036E+00 9.089E-03 1.850E-01 1.682E-03 1.552E-03 0.000E+00 0.000E+00 0.000E+00
1.288E+00 2.088E+00 2.295E+00 2.441E+00 2.447E-01 1.437E-01 8.609E-01 3.595E-03 1.781E-01 1.664E-03 3.074E-03 0.000E+00 0.000E+00 0.000E+00
1.312E+00 1.961E+00 2.093E+00 2.082E+00 2.502E-01 1.019E-01 7.643E-01 3.555E-03 1.334E-01 1.647E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00
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Pb+Pb  $E_{\text{lab}} = 80A$  GeV:

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 2.714E+03 2.907E+03 2.881E+03 1.224E+02 6.285E+01 8.670E+01 8.971E-01 3.496E+01 7.243E-01 1.125E+00 1.265E-01 1.364E-01 4.721E-02
3.750E-02 2.380E+03 2.536E+03 2.561E+03 1.143E+02 5.800E+01 8.375E+01 1.055E+00 3.312E+01 7.354E-01 9.767E-01 9.799E-02 1.421E-01 4.652E-02
6.250E-02 2.010E+03 2.149E+03 2.174E+03 1.027E+02 5.504E+01 8.200E+01 1.086E+00 3.080E+01 7.797E-01 9.269E-01 5.132E-02 1.146E-01 2.802E-02
8.750E-02 1.687E+03 1.806E+03 1.834E+03 9.406E+01 4.951E+01 7.790E+01 1.142E+00 2.898E+01 8.260E-01 8.852E-01 1.008E-01 8.035E-02 3.013E-02
1.125E-01 1.426E+03 1.522E+03 1.540E+03 8.282E+01 4.678E+01 7.471E+01 1.333E+00 2.657E+01 6.689E-01 6.654E-01 7.118E-02 8.170E-02 2.723E-02
1.375E-01 1.200E+03 1.282E+03 1.305E+03 7.381E+01 4.050E+01 7.001E+01 1.105E+00 2.432E+01 7.225E-01 6.722E-01 5.779E-02 8.545E-02 1.465E-02
1.625E-01 1.013E+03 1.079E+03 1.096E+03 6.576E+01 3.776E+01 6.660E+01 1.236E+00 2.205E+01 5.771E-01 6.309E-01 6.578E-02 8.429E-02 1.445E-02
1.875E-01 8.586E+02 9.197E+02 9.235E+02 5.733E+01 3.351E+01 6.348E+01 1.150E+00 2.044E+01 6.236E-01 4.587E-01 4.705E-02 6.652E-02 1.426E-02
2.125E-01 7.349E+02 7.765E+02 7.833E+02 5.190E+01 2.949E+01 5.862E+01 1.252E+00 1.801E+01 5.687E-01 4.107E-01 3.760E-02 7.033E-02 2.110E-02
2.375E-01 6.236E+02 6.623E+02 6.715E+02 4.648E+01 2.633E+01 5.415E+01 1.154E+00 1.665E+01 5.255E-01 3.500E-01 3.984E-02 4.396E-02 1.620E-02
2.625E-01 5.353E+02 5.605E+02 5.692E+02 3.926E+01 2.403E+01 5.101E+01 1.130E+00 1.489E+01 4.871E-01 3.641E-01 2.521E-02 6.623E-02 1.142E-02
2.875E-01 4.588E+02 4.824E+02 4.860E+02 3.591E+01 2.100E+01 4.640E+01 9.770E-01 1.405E+01 4.407E-01 2.647E-01 3.033E-02 2.706E-02 1.353E-02
3.125E-01 3.925E+02 4.158E+02 4.168E+02 3.139E+01 1.842E+01 4.347E+01 9.044E-01 1.270E+01 4.021E-01 2.226E-01 3.800E-02 3.117E-02 0.000E+00
3.375E-01 3.379E+02 3.538E+02 3.634E+02 2.766E+01 1.622E+01 3.990E+01 8.140E-01 1.123E+01 3.982E-01 2.486E-01 2.941E-02 3.518E-02 2.199E-03
3.625E-01 2.870E+02 3.037E+02 3.099E+02 2.465E+01 1.464E+01 3.685E+01 7.813E-01 1.012E+01 3.675E-01 2.054E-01 1.580E-02 1.737E-02 8.686E-03
3.875E-01 2.502E+02 2.641E+02 2.687E+02 2.192E+01 1.301E+01 3.357E+01 8.333E-01 9.391E+00 3.467E-01 1.297E-01 2.854E-02 1.287E-02 2.145E-03
4.125E-01 2.159E+02 2.283E+02 2.318E+02 1.912E+01 1.179E+01 3.052E+01 6.575E-01 8.278E+00 2.804E-01 1.586E-01 1.534E-02 1.484E-02 8.478E-03
4.375E-01 1.868E+02 1.982E+02 1.996E+02 1.715E+01 9.856E+00 2.819E+01 6.616E-01 7.587E+00 2.730E-01 1.815E-01 1.765E-02 2.304E-02 4.189E-03
4.625E-01 1.623E+02 1.709E+02 1.742E+02 1.495E+01 9.178E+00 2.574E+01 4.763E-01 6.860E+00 2.155E-01 1.392E-01 9.942E-03 1.656E-02 1.242E-02
4.875E-01 1.408E+02 1.482E+02 1.512E+02 1.356E+01 8.165E+00 2.275E+01 5.176E-01 5.855E+00 1.901E-01 1.201E-01 2.206E-02 1.227E-02 2.046E-03
5.125E-01 1.225E+02 1.280E+02 1.310E+02 1.200E+01 7.515E+00 2.104E+01 4.447E-01 5.217E+00 1.845E-01 1.209E-01 9.670E-03 1.213E-02 6.067E-03
5.375E-01 1.061E+02 1.124E+02 1.149E+02 1.070E+01 6.442E+00 1.894E+01 3.952E-01 5.066E+00 1.897E-01 1.049E-01 4.770E-03 9.998E-03 2.000E-03
5.625E-01 9.371E+01 9.895E+01 9.985E+01 9.488E+00 5.578E+00 1.746E+01 3.533E-01 4.382E+00 1.790E-01 8.471E-02 9.412E-03 1.186E-02 5.931E-03
5.875E-01 8.183E+01 8.516E+01 8.649E+01 8.387E+00 5.147E+00 1.565E+01 3.215E-01 3.945E+00 1.400E-01 5.805E-02 4.644E-03 1.173E-02 0.000E+00
6.125E-01 7.197E+01 7.447E+01 7.713E+01 7.203E+00 4.428E+00 1.373E+01 2.422E-01 3.553E+00 1.227E-01 6.647E-02 4.584E-03 1.160E-02 1.934E-03
6.375E-01 6.281E+01 6.561E+01 6.625E+01 6.478E+00 4.111E+00 1.288E+01 2.944E-01 3.112E+00 9.574E-02 6.562E-02 4.525E-03 1.722E-02 1.913E-03
6.625E-01 5.507E+01 5.813E+01 5.912E+01 5.795E+00 3.392E+00 1.131E+01 2.429E-01 2.700E+00 1.043E-01 5.362E-02 6.702E-03 3.785E-03 1.892E-03
6.875E-01 4.823E+01 5.055E+01 5.143E+01 4.969E+00 3.279E+00 1.068E+01 2.473E-01 2.589E+00 7.594E-02 7.501E-02 4.412E-03 5.617E-03 5.617E-03
7.125E-01 4.250E+01 4.431E+01 4.525E+01 4.526E+00 2.922E+00 9.430E+00 1.633E-01 2.356E+00 8.457E-02 4.358E-02 8.716E-03 9.264E-03 3.706E-03
7.375E-01 3.742E+01 3.849E+01 3.984E+01 3.978E+00 2.583E+00 8.411E+00 1.292E-01 2.129E+00 6.912E-02 3.659E-02 2.152E-03 7.334E-03 1.834E-03
7.625E-01 3.261E+01 3.427E+01 3.595E+01 3.484E+00 2.416E+00 7.488E+00 1.689E-01 1.696E+00 6.350E-02 3.190E-02 2.127E-03 1.815E-03 3.629E-03
7.875E-01 2.895E+01 3.070E+01 3.123E+01 3.120E+00 2.165E+00 7.067E+00 8.961E-02 1.724E+00 6.267E-02 3.782E-02 4.203E-03 5.389E-03 0.000E+00
8.125E-01 2.544E+01 2.651E+01 2.817E+01 2.851E+00 1.823E+00 6.297E+00 1.186E-01 1.400E+00 5.040E-02 2.907E-02 0.000E+00 1.067E-02 0.000E+00
8.375E-01 2.281E+01 2.421E+01 2.441E+01 2.552E+00 1.699E+00 5.546E+00 8.460E-02 1.368E+00 7.689E-02 1.847E-02 0.000E+00 5.281E-03 3.521E-03
8.625E-01 2.005E+01 2.113E+01 2.144E+01 2.404E+00 1.466E+00 4.949E+00 9.324E-02 1.130E+00 4.466E-02 1.826E-02 2.029E-03 1.743E-03 0.000E+00
8.875E-01 1.790E+01 1.880E+01 1.920E+01 2.079E+00 1.388E+00 4.501E+00 7.986E-02 1.032E+00 5.292E-02 2.006E-02 0.000E+00 0.000E+00 0.000E+00
9.125E-01 1.612E+01 1.730E+01 1.679E+01 1.778E+00 1.131E+00 4.114E+00 5.730E-02 1.035E+00 3.049E-02 5.950E-03 1.983E-03 0.000E+00 0.000E+00
9.375E-01 1.392E+01 1.451E+01 1.524E+01 1.531E+00 1.065E+00 3.522E+00 5.182E-02 8.842E-01 2.367E-02 5.884E-03 5.884E-03 0.000E+00 0.000E+00
9.625E-01 1.218E+01 1.327E+01 1.369E+01 1.356E+00 8.766E-01 3.313E+00 6.276E-02 7.567E-01 1.488E-02 5.819E-03 0.000E+00 0.000E+00 0.000E+00
9.875E-01 1.129E+01 1.151E+01 1.189E+01 1.357E+00 8.290E-01 2.893E+00 5.966E-02 7.015E-01 2.940E-02 1.727E-02 0.000E+00 0.000E+00 0.000E+00
1.012E+00 9.719E+00 1.067E+01 1.062E+01 1.167E+00 7.947E-01 2.646E+00 4.757E-02 5.915E-01 8.302E-03 9.491E-03 0.000E+00 0.000E+00 0.000E+00
1.038E+00 8.625E+00 9.103E+00 9.670E+00 1.007E+00 6.721E-01 2.520E+00 4.025E-02 5.826E-01 6.155E-03 1.315E-02 0.000E+00 0.000E+00 0.000E+00
1.062E+00 7.938E+00 8.240E+00 8.545E+00 8.941E-01 5.478E-01 2.105E+00 3.092E-02 4.928E-01 2.434E-02 7.433E-03 0.000E+00 1.616E-03 0.000E+00
1.087E+00 7.051E+00 7.315E+00 7.437E+00 8.017E-01 5.587E-01 2.002E+00 2.617E-02 4.571E-01 8.020E-03 5.517E-03 1.839E-03 1.601E-03 1.601E-03
1.113E+00 6.126E+00 6.529E+00 6.716E+00 6.683E-01 4.538E-01 1.782E+00 3.447E-02 4.282E-01 1.388E-02 1.092E-02 0.000E+00 1.587E-03 0.000E+00
1.137E+00 5.542E+00 5.867E+00 6.041E+00 7.041E-01 3.926E-01 1.594E+00 2.341E-02 3.411E-01 1.764E-02 1.441E-02 0.000E+00 0.000E+00 0.000E+00
1.163E+00 5.164E+00 5.119E+00 5.279E+00 5.841E-01 3.841E-01 1.521E+00 2.314E-02 3.025E-01 1.357E-02 8.916E-03 0.000E+00 0.000E+00 0.000E+00
1.188E+00 4.616E+00 4.586E+00 4.873E+00 5.701E-01 3.153E-01 1.297E+00 1.455E-02 2.302E-01 9.590E-03 8.827E-03 0.000E+00 0.000E+00 0.000E+00
1.213E+00 3.998E+00 3.998E+00 4.377E+00 4.298E-01 2.925E-01 1.169E+00 1.233E-02 2.504E-01 9.487E-03 5.244E-03 0.000E+00 0.000E+00 0.000E+00
1.238E+00 3.446E+00 3.655E+00 3.774E+00 4.414E-01 2.603E-01 9.809E-01 1.015E-02 2.478E-01 3.754E-03 6.923E-03 0.000E+00 1.518E-03 0.000E+00
1.262E+00 3.095E+00 3.312E+00 3.539E+00 3.974E-01 2.163E-01 9.215E-01 1.205E-02 2.210E-01 3.715E-03 5.142E-03 0.000E+00 0.000E+00 0.000E+00
1.288E+00 2.954E+00 3.037E+00 3.133E+00 3.224E-01 2.058E-01 8.338E-01 1.588E-02 2.224E-01 1.103E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.312E+00 2.534E+00 2.668E+00 2.778E+00 3.033E-01 1.834E-01 7.852E-01 1.178E-02 1.492E-01 3.638E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00
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Pb+Pb  $E_{\text{lab}} = 160A$  GeV:

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! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 3.289E+03 3.447E+03 3.491E+03 1.374E+02 8.257E+01 6.951E+01 2.229E+00 3.118E+01 1.590E+00 1.227E+00 1.971E-01 2.047E-01 6.165E-02
3.750E-02 2.868E+03 3.022E+03 3.105E+03 1.289E+02 7.809E+01 6.770E+01 2.444E+00 2.994E+01 1.559E+00 1.078E+00 2.519E-01 1.701E-01 7.290E-02
6.250E-02 2.425E+03 2.574E+03 2.655E+03 1.162E+02 7.451E+01 6.624E+01 2.674E+00 2.806E+01 1.611E+00 9.741E-01 1.538E-01 2.036E-01 6.466E-02
8.750E-02 2.067E+03 2.154E+03 2.239E+03 1.059E+02 6.799E+01 6.401E+01 2.625E+00 2.642E+01 1.705E+00 8.649E-01 1.836E-01 1.558E-01 4.958E-02
1.125E-01 1.739E+03 1.822E+03 1.874E+03 9.440E+01 6.080E+01 6.046E+01 2.855E+00 2.431E+01 1.549E+00 8.294E-01 1.019E-01 1.304E-01 6.053E-02
1.375E-01 1.466E+03 1.544E+03 1.574E+03 8.391E+01 5.599E+01 5.859E+01 2.773E+00 2.284E+01 1.515E+00 7.350E-01 1.230E-01 1.286E-01 2.984E-02
1.625E-01 1.247E+03 1.299E+03 1.340E+03 7.553E+01 4.884E+01 5.537E+01 2.673E+00 2.076E+01 1.436E+00 6.748E-01 1.012E-01 9.964E-02 3.850E-02
1.875E-01 1.062E+03 1.104E+03 1.137E+03 6.753E+01 4.413E+01 5.214E+01 2.532E+00 1.862E+01 1.237E+00 5.751E-01 9.124E-02 9.159E-02 4.915E-02
2.125E-01 9.013E+02 9.410E+02 9.694E+02 5.904E+01 3.935E+01 4.899E+01 2.491E+00 1.700E+01 1.166E+00 5.412E-01 7.887E-02 8.377E-02 3.527E-02
2.375E-01 7.674E+02 8.041E+02 8.216E+02 5.356E+01 3.507E+01 4.576E+01 2.276E+00 1.575E+01 1.142E+00 4.469E-01 5.352E-02 8.484E-02 1.523E-02
2.625E-01 6.530E+02 6.890E+02 7.017E+02 4.653E+01 3.134E+01 4.236E+01 2.111E+00 1.434E+01 9.583E-01 3.818E-01 8.163E-02 4.939E-02 2.792E-02
2.875E-01 5.643E+02 5.847E+02 6.000E+02 2.816E+01 2.816E+01 2.017E+00 1.290E+01 8.879E-01 3.655E-01 2.017E+00 1.648E-02 6.148E-02 1.484E-02
3.125E-01 4.833E+02 5.035E+02 5.122E+02 3.568E+01 2.447E+01 3.581E+01 1.794E+00 1.169E+01 8.375E-01 2.706E-01 5.615E-02 4.815E-02 1.465E-02
3.375E-01 4.202E+02 4.337E+02 4.428E+02 3.164E+01 2.154E+01 3.321E+01 1.736E+00 1.025E+01 6.059E-01 2.288E-01 4.274E-02 5.168E-02 1.034E-02
3.625E-01 3.597E+02 3.705E+02 3.792E+02 2.873E+01 1.991E+01 3.136E+01 1.613E+00 9.530E+00 6.547E-01 2.427E-01 3.962E-02 3.675E-02 1.225E-02
3.875E-01 3.102E+02 3.234E+02 3.322E+02 2.521E+01 1.737E+01 2.853E+01 1.244E+00 8.493E+00 6.079E-01 2.440E-01 2.196E-02 4.438E-02 1.412E-02
4.125E-01 2.696E+02 2.753E+02 2.860E+02 2.229E+01 1.537E+01 2.558E+01 1.357E+00 7.917E+00 6.414E-01 2.501E-01 4.569E-02 2.591E-02 7.971E-03
4.375E-01 2.324E+02 2.409E+02 2.481E+02 1.966E+01 1.339E+01 2.349E+01 1.172E+00 6.827E+00 6.043E-01 1.849E-01 2.607E-02 2.363E-02 7.877E-03
4.625E-01 2.001E+02 2.094E+02 2.169E+02 1.716E+01 1.213E+01 2.149E+01 1.154E+00 6.379E+00 4.342E-01 1.496E-01 2.571E-02 3.309E-02 1.946E-03
4.875E-01 1.734E+02 1.829E+02 1.870E+02 1.528E+01 1.081E+01 1.948E+01 8.888E-01 5.743E+00 4.041E-01 1.314E-01 2.074E-02 1.731E-02 3.847E-03
5.125E-01 1.531E+02 1.595E+02 1.624E+02 1.390E+01 9.291E+00 1.791E+01 8.792E-01 5.000E+00 2.678E-01 1.227E-01 9.092E-03 2.852E-02 0.000E+00
5.375E-01 1.345E+02 1.385E+02 1.419E+02 1.164E+01 8.340E+00 1.628E+01 7.489E-01 4.407E+00 2.889E-01 9.867E-02 1.121E-02 1.692E-02 1.880E-03
5.625E-01 1.161E+02 1.203E+02 1.228E+02 1.030E+01 7.573E+00 1.432E+01 6.921E-01 4.153E+00 2.772E-01 8.850E-02 1.106E-02 1.859E-02 0.000E+00
5.875E-01 1.010E+02 1.049E+02 1.069E+02 9.403E+00 6.799E+00 1.347E+01 5.964E-01 3.894E+00 2.414E-01 7.642E-02 4.367E-03 7.354E-03 1.839E-03
6.125E-01 8.970E+01 9.156E+01 9.512E+01 8.301E+00 5.875E+00 1.234E+01 6.591E-01 3.353E+00 2.259E-01 8.836E-02 2.155E-03 1.818E-02 1.818E-03
6.375E-01 7.767E+01 8.007E+01 8.209E+01 7.420E+00 5.342E+00 1.103E+01 4.377E-01 2.938E+00 1.729E-01 8.723E-02 6.383E-03 1.079E-02 3.597E-03
6.625E-01 6.740E+01 7.123E+01 7.260E+01 6.487E+00 4.953E+00 1.029E+01 4.309E-01 2.602E+00 2.055E-01 5.042E-02 1.050E-02 8.897E-03 3.559E-03
6.875E-01 5.963E+01 6.214E+01 6.323E+01 5.840E+00 4.272E+00 8.939E+00 4.702E-01 2.402E+00 1.797E-01 7.053E-02 6.223E-03 8.803E-03 3.521E-03
7.125E-01 5.276E+01 5.512E+01 5.638E+01 5.065E+00 3.478E+00 8.203E+00 3.725E-01 2.220E+00 1.522E-01 6.761E-02 1.024E-02 5.226E-03 1.742E-03
7.375E-01 4.680E+01 4.793E+01 4.862E+01 4.399E+00 3.424E+00 7.237E+00 3.669E-01 1.842E+00 1.659E-01 4.857E-02 6.072E-03 5.172E-03 0.000E+00
7.625E-01 4.075E+01 4.191E+01 4.304E+01 4.238E+00 2.797E+00 6.720E+00 2.516E-01 1.667E+00 1.194E-01 3.999E-02 5.999E-03 8.532E-03 0.000E+00
7.875E-01 3.609E+01 3.760E+01 3.795E+01 3.728E+00 2.729E+00 6.038E+00 2.696E-01 1.615E+00 9.821E-02 2.964E-02 7.903E-03 3.378E-03 0.000E+00
8.125E-01 3.182E+01 3.331E+01 3.439E+01 3.285E+00 2.362E+00 5.302E+00 2.444E-01 1.381E+00 8.616E-02 2.538E-02 5.858E-03 0.000E+00 0.000E+00
8.375E-01 2.786E+01 2.920E+01 3.020E+01 2.780E+00 2.175E+00 4.670E+00 1.731E-01 1.278E+00 8.719E-02 2.702E-02 1.158E-02 1.655E-03 0.000E+00
8.625E-01 2.431E+01 2.528E+01 2.689E+01 2.533E+00 1.859E+00 4.478E+00 1.846E-01 1.119E+00 8.608E-02 3.243E-02 5.723E-03 3.278E-03 3.278E-03
8.875E-01 2.172E+01 2.291E+01 2.387E+01 2.252E+00 1.654E+00 4.080E+00 1.889E-01 1.080E+00 6.842E-02 9.430E-03 0.000E+00 1.623E-03 1.623E-03
9.125E-01 1.961E+01 1.982E+01 2.044E+01 2.085E+00 1.568E+00 3.545E+00 1.437E-01 9.093E-01 5.120E-02 1.305E-02 1.865E-03 3.215E-03 0.000E+00
9.375E-01 1.706E+01 1.798E+01 1.818E+01 1.950E+00 1.320E+00 3.307E+00 1.484E-01 7.566E-01 6.069E-02 1.107E-02 1.844E-03 0.000E+00 0.000E+00
9.625E-01 1.541E+01 1.551E+01 1.636E+01 1.777E+00 1.244E+00 3.036E+00 1.246E-01 7.695E-01 4.597E-02 1.824E-02 0.000E+00 3.154E-03 0.000E+00
9.875E-01 1.333E+01 1.340E+01 1.480E+01 1.511E+00 9.730E-01 2.561E+00 1.381E-01 6.853E-01 4.740E-02 1.263E-02 1.804E-03 1.562E-03 1.562E-03
1.012E+00 1.175E+01 1.221E+01 1.307E+01 1.329E+00 9.789E-01 2.439E+00 1.044E-01 5.465E-01 5.074E-02 7.139E-03 0.000E+00 0.000E+00 0.000E+00
1.038E+00 1.078E+01 1.109E+01 1.157E+01 1.134E+00 9.087E-01 2.145E+00 9.463E-02 4.514E-01 3.472E-02 8.829E-03 1.766E-03 4.600E-03 0.000E+00
1.062E+00 9.578E+00 1.004E+01 1.061E+01 1.102E+00 7.153E-01 1.956E+00 7.060E-02 4.843E-01 3.432E-02 6.989E-03 0.000E+00 0.000E+00 0.000E+00
1.087E+00 8.603E+00 9.417E+00 9.227E+00 9.955E-01 7.171E-01 1.698E+00 8.204E-02 4.562E-01 3.582E-02 3.458E-03 0.000E+00 0.000E+00 0.000E+00
1.113E+00 7.687E+00 7.993E+00 8.315E+00 7.292E-01 6.258E-01 1.596E+00 5.065E-02 4.642E-01 2.610E-02 1.198E-02 1.711E-03 0.000E+00 1.492E-03
1.137E+00 6.784E+00 6.979E+00 7.266E+00 6.900E-01 6.136E-01 1.335E+00 5.204E-02 3.576E-01 3.134E-02 5.081E-03 0.000E+00 1.479E-03 0.000E+00
1.163E+00 6.206E+00 6.267E+00 6.580E+00 6.219E-01 4.890E-01 1.216E+00 5.735E-02 2.917E-01 1.641E-02 5.030E-03 0.000E+00 1.466E-03 0.000E+00
1.188E+00 5.510E+00 5.720E+00 5.926E+00 6.201E-01 4.645E-01 1.079E+00 4.104E-02 2.994E-01 1.803E-02 1.660E-03 0.000E+00 0.000E+00 0.000E+00
1.213E+00 4.759E+00 5.143E+00 5.122E+00 5.648E-01 3.432E-01 9.832E-01 4.443E-02 2.408E-01 1.784E-02 8.218E-03 0.000E+00 0.000E+00 0.000E+00
1.238E+00 4.415E+00 4.279E+00 4.666E+00 4.870E-01 3.839E-01 9.127E-01 3.628E-02 2.189E-01 1.412E-02 1.627E-03 0.000E+00 0.000E+00 0.000E+00
1.262E+00 3.856E+00 4.010E+00 4.253E+00 4.635E-01 3.074E-01 7.872E-01 3.964E-02 2.305E-01 1.397E-02 1.612E-03 0.000E+00 0.000E+00 0.000E+00
1.288E+00 3.471E+00 3.733E+00 3.853E+00 3.894E-01 2.728E-01 8.176E-01 1.493E-02 1.832E-01 8.642E-03 3.192E-03 0.000E+00 0.000E+00 0.000E+00
1.312E+00 3.165E+00 3.173E+00 3.365E+00 3.403E-01 2.782E-01 6.700E-01 2.030E-02 1.574E-01 3.421E-03 1.581E-03 1.581E-03 0.000E+00 0.000E+00
```

# Au+Au $E_{CM} = 56A$ GeV:

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 4.366E+03 4.445E+03 4.647E+03 1.805E+02 1.396E+02 4.524E+01 1.015E+01 2.375E+01 5.707E+00 1.656E+00 5.989E-01 3.690E-01 1.755E-01
3.750E-02 3.860E+03 3.920E+03 4.122E+03 1.707E+02 1.343E+02 4.509E+01 1.055E+01 2.299E+01 5.653E+00 1.482E+00 5.628E-01 2.919E-01 1.352E-01
6.250E-02 3.301E+03 3.365E+03 3.528E+03 1.548E+02 1.238E+02 4.356E+01 1.125E+01 2.119E+01 5.469E+00 1.421E+00 4.697E-01 3.048E-01 1.428E-01
8.750E-02 2.828E+03 2.878E+03 3.015E+03 1.411E+02 1.129E+02 4.129E+01 1.033E+01 1.929E+01 5.387E+00 1.161E+00 4.432E-01 2.644E-01 8.229E-02
1.125E-01 2.405E+03 2.457E+03 2.561E+03 1.254E+02 1.012E+02 3.846E+01 1.026E+01 1.773E+01 4.950E+00 1.182E+00 3.940E-01 1.848E-01 1.133E-01
1.375E-01 2.061E+03 2.102E+03 2.188E+03 1.140E+02 9.143E+01 3.612E+01 9.389E+00 1.567E+01 4.487E+00 9.287E-01 3.756E-01 1.706E-01 7.358E-02
1.625E-01 1.772E+03 1.793E+03 1.866E+03 1.020E+02 8.257E+01 3.441E+01 9.222E+00 1.409E+01 4.555E+00 8.214E-01 3.091E-01 1.452E-01 6.242E-02
1.875E-01 1.509E+03 1.539E+03 1.597E+03 9.014E+01 7.241E+01 3.252E+01 8.533E+00 1.346E+01 4.341E+00 7.064E-01 2.674E-01 1.501E-01 5.492E-02
2.125E-01 1.306E+03 1.322E+03 1.365E+03 7.946E+01 6.433E+01 3.011E+01 7.994E+00 1.221E+01 3.842E+00 6.367E-01 2.907E-01 1.436E-01 4.587E-02
2.375E-01 1.125E+03 1.137E+03 1.176E+03 7.089E+01 5.883E+01 2.770E+01 7.537E+00 1.082E+01 3.493E+00 4.957E-01 2.560E-01 1.019E-01 5.215E-02
2.625E-01 9.581E+02 9.780E+02 1.013E+03 6.224E+01 5.269E+01 2.595E+01 7.165E+00 9.662E+00 3.043E+00 4.611E-01 1.716E-01 8.525E-02 3.831E-02
2.875E-01 8.297E+02 8.334E+02 8.761E+02 5.451E+01 4.663E+01 2.367E+01 6.511E+00 8.975E+00 2.862E+00 4.275E-01 1.583E-01 7.985E-02 3.299E-02
3.125E-01 7.146E+02 7.282E+02 7.589E+02 4.844E+01 4.089E+01 2.162E+01 6.182E+00 7.924E+00 2.694E+00 3.560E-01 1.611E-01 8.311E-02 3.430E-02
3.375E-01 6.142E+02 6.310E+02 6.569E+02 4.292E+01 3.631E+01 2.024E+01 5.460E+00 7.135E+00 2.429E+00 3.224E-01 1.638E-01 5.892E-02 4.368E-02
3.625E-01 5.377E+02 5.448E+02 5.679E+02 3.875E+01 3.177E+01 1.824E+01 4.965E+00 6.271E+00 2.065E+00 2.748E-01 1.286E-01 6.651E-02 2.404E-02
3.875E-01 4.659E+02 4.744E+02 4.902E+02 3.355E+01 2.940E+01 1.663E+01 4.498E+00 6.077E+00 1.873E+00 2.558E-01 1.143E-01 5.133E-02 2.222E-02
4.125E-01 4.038E+02 4.087E+02 4.275E+02 2.864E+01 2.522E+01 1.554E+01 4.274E+00 5.224E+00 1.726E+00 2.644E-01 1.028E-01 4.869E-02 1.415E-02
4.375E-01 3.508E+02 3.579E+02 3.701E+02 2.607E+01 2.249E+01 1.387E+01 3.702E+00 4.653E+00 1.631E+00 2.027E-01 8.204E-02 4.210E-02 1.558E-02
4.625E-01 3.069E+02 3.068E+02 3.224E+02 2.355E+01 2.026E+01 1.274E+01 3.355E+00 4.239E+00 1.431E+00 1.856E-01 9.516E-02 3.566E-02 1.544E-02
4.875E-01 2.650E+02 2.718E+02 2.813E+02 2.054E+01 1.755E+01 1.142E+01 3.183E+00 3.864E+00 1.287E+00 1.525E-01 7.507E-02 2.937E-02 1.377E-02
5.125E-01 2.361E+02 2.338E+02 2.454E+02 1.768E+01 1.608E+01 1.024E+01 2.781E+00 3.506E+00 1.109E+00 1.435E-01 7.173E-02 3.097E-02 7.581E-03
5.375E-01 2.036E+02 2.080E+02 2.127E+02 1.578E+01 1.394E+01 9.452E+00 2.439E+00 3.093E+00 1.000E-00 1.050E-01 4.794E-02 1.914E-02 4.508E-03
5.625E-01 1.780E+02 1.805E+02 1.864E+02 1.415E+01 1.227E+01 8.545E+00 2.373E+00 2.789E+00 9.070E-01 1.216E-01 4.955E-02 2.839E-02 2.979E-03
5.875E-01 1.582E+02 1.576E+02 1.625E+02 1.255E+01 1.123E+01 8.103E+00 2.198E+00 2.595E+00 7.844E-01 9.336E-02 3.779E-02 2.059E-02 2.953E-03
6.125E-01 1.365E+02 1.380E+02 1.414E+02 1.133E+01 9.910E+00 7.105E+00 1.827E+00 2.251E+00 7.217E-01 1.053E-01 4.168E-02 1.111E-02 2.928E-03
6.375E-01 1.200E+02 1.223E+02 1.251E+02 1.001E+01 8.768E+00 6.579E+00 1.739E+00 2.077E+00 6.753E-01 8.880E-02 3.032E-02 9.155E-03 1.451E-03
6.625E-01 1.041E+02 1.062E+02 1.103E+02 8.794E+00 7.982E+00 5.940E+00 1.564E+00 1.986E+00 6.016E-01 6.201E-02 3.422E-02 7.246E-03 4.317E-03
6.875E-01 9.221E+01 9.295E+01 9.649E+01 7.756E+00 6.661E+00 5.513E+00 1.423E+00 1.644E+00 5.815E-01 7.180E-02 1.901E-02 1.434E-02 8.560E-03
7.125E-01 8.217E+01 8.295E+01 8.395E+01 7.052E+00 6.327E+00 4.909E+00 1.189E+00 1.418E+00 4.741E-01 7.717E-02 2.086E-02 8.867E-03 2.830E-03
7.375E-01 7.251E+01 7.301E+01 7.485E+01 6.280E+00 5.460E+00 4.551E+00 1.164E+00 1.289E+00 4.175E-01 7.005E-02 2.266E-02 3.510E-03 2.806E-03
7.625E-01 6.289E+01 6.472E+01 6.687E+01 5.607E+00 5.072E+00 4.073E+00 8.530E-01 1.245E+00 3.692E-01 3.867E-02 1.628E-02 1.737E-02 2.783E-03
7.875E-01 5.474E+01 5.673E+01 5.842E+01 4.904E+00 4.267E+00 3.786E+00 9.215E-01 1.140E+00 3.332E-01 3.218E-02 1.207E-02 5.158E-03 6.901E-03
8.125E-01 4.931E+01 5.146E+01 5.200E+01 4.405E+00 3.839E+00 3.442E+00 7.972E-01 9.738E-01 3.026E-01 4.572E-02 1.988E-02 5.106E-03 2.738E-03
8.375E-01 4.375E+01 4.483E+01 4.653E+01 3.913E+00 3.424E+00 3.032E+00 6.431E-01 9.375E-01 2.489E-01 2.947E-02 1.965E-02 1.685E-03 1.358E-03
8.625E-01 3.891E+01 4.020E+01 4.018E+01 3.476E+00 3.077E+00 2.692E+00 5.942E-01 7.888E-01 2.714E-01 3.301E-02 9.710E-03 1.668E-03 1.347E-03
8.875E-01 3.477E+01 3.491E+01 3.621E+01 3.104E+00 2.825E+00 2.504E+00 5.838E-01 6.418E-01 2.786E-01 1.920E-02 3.840E-03 8.261E-03 2.673E-03
9.125E-01 3.069E+01 3.024E+01 3.202E+01 2.736E+00 2.501E+00 2.208E+00 5.599E-01 6.609E-01 1.668E-01 1.898E-02 9.492E-03 1.636E-03 1.326E-03
9.375E-01 2.727E+01 2.842E+01 2.831E+01 2.354E+00 2.316E+00 2.032E+00 4.352E-01 5.911E-01 1.956E-01 2.441E-02 5.632E-03 3.241E-03 1.316E-03
9.625E-01 2.414E+01 2.475E+01 2.510E+01 2.256E+00 1.980E+00 1.827E+00 4.139E-01 5.331E-01 1.221E-01 2.414E-02 7.427E-03 4.815E-03 2.611E-03
9.875E-01 2.142E+01 2.136E+01 2.281E+01 1.950E+00 1.727E+00 1.553E+00 3.360E-01 4.745E-01 1.086E-01 1.837E-02 5.510E-03 1.590E-03 1.296E-03
1.012E+00 1.918E+01 1.959E+01 1.980E+01 1.659E+00 1.592E+00 1.576E+00 3.382E-01 4.272E-01 1.391E-01 2.180E-02 5.451E-03 3.151E-03 1.286E-03
1.038E+00 1.767E+01 1.729E+01 1.800E+01 1.590E+00 1.513E+00 1.409E+00 2.740E-01 3.849E-01 9.818E-02 1.258E-02 3.595E-03 1.561E-03 0.000E+00
1.062E+00 1.563E+01 1.554E+01 1.621E+01 1.377E+00 1.348E+00 1.201E+00 2.515E-01 3.728E-01 9.123E-02 3.557E-03 3.557E-03 1.546E-03 0.000E+00
1.087E+00 1.326E+01 1.406E+01 1.418E+01 1.209E+00 1.075E+00 1.098E+00 2.317E-01 2.975E-01 1.113E-01 1.408E-02 7.041E-03 4.597E-03 1.257E-03
1.113E+00 1.194E+01 1.228E+01 1.266E+01 1.069E+00 1.003E+00 9.755E-01 2.227E-01 3.018E-01 1.082E-01 6.968E-03 1.742E-03 4.556E-03 1.248E-03
1.137E+00 1.077E+01 1.128E+01 1.142E+01 9.927E-01 9.538E-01 9.800E-01 1.610E-01 2.534E-01 6.756E-02 1.035E-02 0.000E+00 3.010E-03 0.000E+00
1.163E+00 9.931E+00 9.713E+00 1.022E+01 9.497E-01 8.297E-01 8.617E-01 1.792E-01 2.302E-01 7.053E-02 6.827E-03 1.707E-03 0.000E+00 1.230E-03
1.188E+00 9.061E+00 8.607E+00 8.994E+00 8.123E-01 7.117E-01 7.381E-01 1.293E-01 2.534E-01 5.507E-02 1.014E-02 3.380E-03 0.000E+00 1.221E-03
1.213E+00 7.872E+00 7.978E+00 8.091E+00 7.013E-01 7.335E-01 6.509E-01 1.298E-01 1.889E-01 5.448E-02 5.019E-03 1.673E-03 1.466E-03 1.212E-03
1.238E+00 6.880E+00 7.663E+00 7.440E+00 6.643E-01 6.814E-01 6.162E-01 1.205E-01 1.420E-01 4.672E-02 9.940E-03 3.313E-03 0.000E+00 0.000E+00
1.262E+00 6.181E+00 6.444E+00 6.712E+00 6.067E-01 5.658E-01 5.592E-01 1.153E-01 1.743E-01 3.911E-02 1.641E-03 1.641E-03 0.000E+00 0.000E+00
1.288E+00 5.286E+00 5.716E+00 5.764E+00 5.911E-01 4.510E-01 4.427E-01 1.026E-01 1.513E-01 2.111E-02 6.500E-03 3.250E-03 0.000E+00 1.187E-03
1.312E+00 5.003E+00 5.102E+00 5.361E+00 4.448E-01 4.822E-01 4.622E-01 7.328E-02 1.149E-01 2.960E-02 0.000E+00 1.609E-03 0.000E+00 0.000E+00
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Au+Au  $E_{CM} = 62.5A$  GeV:

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 4.423E+03 4.519E+03 4.724E+03 1.839E+02 1.457E+02 4.487E+01 1.100E+01 2.390E+01 6.213E+00 1.692E+00 6.679E-01 3.774E-01 2.384E-01
3.750E-02 3.939E+03 3.992E+03 4.206E+03 1.735E+02 1.386E+02 4.427E+01 1.142E+01 2.265E+01 6.017E+00 1.645E+00 5.875E-01 3.132E-01 2.177E-01
6.250E-02 3.401E+03 3.447E+03 3.608E+03 1.584E+02 1.291E+02 4.285E+01 1.177E+01 2.084E+01 5.868E+00 1.348E+00 4.494E-01 3.014E-01 1.953E-01
8.750E-02 2.918E+03 2.941E+03 3.088E+03 1.449E+02 1.169E+02 4.077E+01 1.116E+01 1.951E+01 5.551E+00 1.264E+00 4.712E-01 2.591E-01 1.474E-01
1.125E-01 2.491E+03 2.522E+03 2.635E+03 1.311E+02 1.073E+02 3.746E+01 1.120E+01 1.733E+01 5.305E+00 1.131E+00 4.131E-01 2.897E-01 1.406E-01
1.375E-01 2.122E+03 2.155E+03 2.254E+03 1.171E+02 9.519E+01 3.619E+01 1.028E+01 1.567E+01 4.916E+00 8.609E-01 3.743E-01 1.826E-01 1.317E-01
1.625E-01 1.812E+03 1.850E+03 1.920E+03 1.041E+02 8.525E+01 3.298E+01 1.038E+01 1.404E+01 4.548E+00 8.379E-01 3.482E-01 1.413E-01 1.345E-01
1.875E-01 1.565E+03 1.585E+03 1.654E+03 9.360E+01 7.618E+01 3.108E+01 9.442E+00 1.285E+01 4.416E+00 7.516E-01 2.951E-01 1.394E-01 9.447E-02
2.125E-01 1.345E+03 1.359E+03 1.418E+03 8.237E+01 6.855E+01 2.887E+01 8.830E+00 1.123E+01 3.977E+00 7.584E-01 3.121E-01 1.554E-01 7.768E-02
2.375E-01 1.150E+03 1.168E+03 1.217E+03 7.324E+01 5.983E+01 2.734E+01 7.973E+00 1.084E+01 3.548E+00 5.280E-01 2.505E-01 1.073E-01 5.476E-02
2.625E-01 9.984E+02 1.013E+03 1.047E+03 6.395E+01 5.383E+01 2.494E+01 7.602E+00 9.672E+00 3.317E+00 5.409E-01 2.360E-01 9.945E-02 3.459E-02
2.875E-01 8.633E+02 8.695E+02 9.042E+02 5.801E+01 4.881E+01 1.146E+01 3.395E+00 3.852E+00 1.310E+00 4.280E+01 1.905E-01 8.817E-02 3.486E-02
3.125E-01 7.454E+02 7.526E+02 7.805E+02 5.041E+01 4.306E+01 2.103E+01 6.629E+00 7.820E+00 2.958E+00 3.906E-01 1.825E-01 8.009E-02 3.794E-02
3.375E-01 6.408E+02 6.507E+02 6.763E+02 4.469E+01 3.803E+01 1.951E+01 5.869E+00 7.179E+00 2.530E+00 3.569E-01 1.569E-01 4.579E-02 2.914E-02
3.625E-01 5.586E+02 5.627E+02 5.886E+02 3.925E+01 3.426E+01 1.803E+01 5.474E+00 6.342E+00 2.264E+00 3.166E-01 1.396E-01 5.962E-02 3.700E-02
3.875E-01 4.829E+02 4.911E+02 5.066E+02 3.441E+01 2.972E+01 1.623E+01 5.086E+00 5.664E+00 2.090E+00 2.555E-01 9.335E-02 3.249E-02 3.046E-02
4.125E-01 4.219E+02 4.275E+02 4.432E+02 3.106E+01 2.699E+01 1.490E+01 4.385E+00 5.232E+00 1.908E+00 2.348E-01 7.989E-02 4.213E-02 3.010E-02
4.375E-01 3.668E+02 3.690E+02 3.798E+02 2.709E+01 2.363E+01 1.360E+01 4.220E+00 4.833E+00 1.675E+00 2.052E-01 9.546E-02 4.362E-02 1.784E-02
4.625E-01 3.178E+02 3.251E+02 3.345E+02 2.324E+01 2.103E+01 1.226E+01 3.524E+00 4.208E+00 1.556E+00 2.000E-01 9.176E-02 4.703E-02 2.547E-02
4.875E-01 2.756E+02 2.814E+02 2.906E+02 2.123E+01 1.858E+01 1.146E+01 3.395E+00 3.852E+00 1.310E+00 1.462E-01 8.817E-02 3.486E-02 1.549E-02
5.125E-01 2.416E+02 2.464E+02 2.540E+02 1.896E+01 1.641E+01 1.085E+01 2.915E+00 3.380E+00 1.236E+00 1.419E-01 6.179E-02 3.063E-02 1.532E-02
5.375E-01 2.122E+02 2.138E+02 2.202E+02 1.653E+01 1.483E+01 9.584E+00 2.775E+00 3.056E+00 1.141E+00 1.467E-01 5.418E-02 3.218E-02 1.514E-02
5.625E-01 1.850E+02 1.885E+02 1.959E+02 1.455E+01 1.318E+01 8.498E+00 2.475E+00 2.711E+00 1.064E+00 1.292E-01 4.901E-02 1.310E-02 9.359E-03
5.875E-01 1.630E+02 1.633E+02 1.692E+02 1.320E+01 1.152E+01 7.868E+00 2.297E+00 2.487E+00 9.061E-01 9.453E-02 3.957E-02 1.296E-02 1.296E-02
6.125E-01 1.419E+02 1.436E+02 1.497E+02 1.162E+01 1.071E+01 7.253E+00 2.080E+00 2.294E+00 7.163E-01 8.896E-02 4.123E-02 1.465E-02 1.098E-02
6.375E-01 1.239E+02 1.279E+02 1.311E+02 1.000E+01 9.071E+00 6.366E+00 1.938E+00 1.932E+00 7.538E-01 6.212E-02 4.284E-02 1.630E-02 1.087E-02
6.625E-01 1.092E+02 1.128E+02 1.155E+02 8.763E+00 8.245E+00 5.869E+00 1.484E+00 1.839E+00 7.080E-01 4.653E-02 2.749E-02 8.958E-03 0.000E+00
6.875E-01 9.724E+01 9.791E+01 1.007E+02 8.184E+00 7.345E+00 5.190E+00 1.338E+00 1.707E+00 6.031E-01 5.848E-02 3.342E-02 1.773E-02 1.418E-02
7.125E-01 8.562E+01 8.683E+01 8.966E+01 7.034E+00 6.566E+00 4.817E+00 1.363E+00 1.500E+00 5.056E-01 4.126E-02 3.300E-02 7.016E-03 1.052E-02
7.375E-01 7.502E+01 7.646E+01 7.866E+01 6.341E+00 5.953E+00 4.476E+00 1.203E+00 1.361E+00 4.581E-01 5.094E-02 1.834E-02 8.679E-03 1.736E-03
7.625E-01 6.615E+01 6.745E+01 7.047E+01 5.692E+00 5.329E+00 4.144E+00 1.021E+00 1.160E+00 4.298E-01 5.033E-02 1.812E-02 6.872E-03 1.718E-03
7.875E-01 5.802E+01 5.952E+01 6.085E+01 5.104E+00 4.687E+00 3.556E+00 9.356E-01 1.096E+00 3.956E-01 3.978E-02 2.586E-02 3.401E-03 0.000E+00
8.125E-01 5.223E+01 5.193E+01 5.422E+01 4.507E+00 4.101E+00 3.096E+00 8.721E-01 1.054E+00 3.557E-01 2.949E-02 1.966E-02 1.683E-03 1.683E-03
8.375E-01 4.559E+01 4.674E+01 4.756E+01 4.080E+00 3.757E+00 3.072E+00 7.491E-01 9.120E-01 3.426E-01 2.332E-02 1.554E-02 0.000E+00 1.667E-03
8.625E-01 4.132E+01 4.193E+01 4.316E+01 3.580E+00 3.413E+00 2.855E+00 6.643E-01 7.272E-01 2.601E-01 2.881E-02 1.344E-02 8.251E-03 1.650E-03
8.875E-01 3.634E+01 3.647E+01 3.856E+01 3.312E+00 2.979E+00 2.481E+00 5.361E-01 7.098E-01 2.526E-01 1.709E-02 1.139E-02 6.536E-03 3.268E-03
9.125E-01 3.218E+01 3.291E+01 3.379E+01 2.944E+00 2.762E+00 2.253E+00 5.289E-01 7.175E-01 2.165E-01 1.690E-02 1.314E-02 8.091E-03 3.236E-03
9.375E-01 2.894E+01 2.843E+01 3.002E+01 2.501E+00 2.381E+00 2.014E+00 5.263E-01 4.847E-01 1.854E-01 1.857E-02 9.284E-03 6.411E-03 0.000E+00
9.625E-01 2.544E+01 2.579E+01 2.612E+01 2.268E+00 2.157E+00 1.809E+00 4.335E-01 5.876E-01 2.274E-01 1.836E-02 3.673E-03 1.588E-03 1.588E-03
9.875E-01 2.262E+01 2.300E+01 2.416E+01 2.114E+00 1.920E+00 1.714E+00 3.866E-01 4.931E-01 1.531E-01 2.180E-02 5.449E-03 1.573E-03 1.573E-03
1.012E+00 2.015E+01 2.079E+01 2.108E+01 1.952E+00 1.749E+00 1.334E+00 3.388E-01 4.166E-01 1.513E-01 1.258E-02 3.594E-03 0.000E+00 0.000E+00
1.038E+00 1.818E+01 1.854E+01 1.862E+01 1.720E+00 1.649E+00 1.363E+00 3.218E-01 4.312E-01 1.418E-01 5.333E-03 5.333E-03 0.000E+00 0.000E+00
1.062E+00 1.632E+01 1.678E+01 1.725E+01 1.569E+00 1.419E+00 1.213E+00 2.801E-01 4.070E-01 8.833E-02 8.796E-03 0.000E+00 1.529E-03 1.529E+03
1.087E+00 1.458E+01 1.441E+01 1.564E+01 1.346E+00 1.235E+00 1.094E+00 2.932E-01 3.360E-01 1.139E-01 2.089E-02 0.000E+00 1.516E-03 1.516E-03
1.113E+00 1.303E+01 1.320E+01 1.332E+01 1.216E+00 1.169E+00 9.586E-01 2.182E-01 2.909E-01 1.089E-01 6.892E-03 0.000E+00 1.502E-03 0.000E+00
1.137E+00 1.196E+01 1.174E+01 1.225E+01 1.084E+00 1.020E+00 8.766E-01 2.035E-01 2.673E-01 6.868E-02 3.411E-03 3.411E-03 2.977E-03 0.000E+00
1.163E+00 1.003E+01 1.084E+01 1.104E+01 1.045E+00 8.711E-01 8.024E-01 1.951E-01 2.588E-01 7.343E-02 6.753E-03 0.000E+00 4.427E-03 1.476E-03
1.188E+00 8.870E+00 9.466E+00 9.674E+00 8.407E-01 7.910E-01 7.812E-01 1.692E-01 1.906E-01 5.085E-02 3.343E-03 1.671E-03 1.463E-03 1.463E-03
1.213E+00 8.101E+00 8.027E+00 8.634E+00 8.039E-01 6.936E-01 6.982E-01 1.459E-01 2.299E-01 5.030E-02 3.309E-03 1.655E-03 0.000E+00 0.000E+00
1.238E+00 7.465E+00 7.486E+00 7.568E+00 7.222E-01 6.111E-01 6.229E-01 1.480E-01 1.724E-01 6.932E-02 1.147E-02 3.277E-03 1.437E-03 0.000E+00
1.262E+00 6.734E+00 6.818E+00 6.728E+00 6.310E-01 6.429E-01 5.322E-01 1.083E-01 1.635E-01 5.276E-02 4.868E-03 1.623E-03 1.425E-03 0.000E+00
1.288E+00 5.959E+00 6.370E+00 6.064E+00 5.165E-01 5.188E-01 4.961E-01 1.090E-01 1.618E-01 3.655E-02 6.428E-03 3.214E-03 2.826E-03 0.000E+00
1.312E+00 5.499E+00 5.398E+00 5.675E+00 5.348E-01 4.561E-01 4.479E-01 8.549E-02 1.309E-01 3.789E-02 1.114E-02 1.592E-03 0.000E+00 1.401E-03
```

Au+Au  $E_{CM} = 130A$  GeV:

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 4.842E+03 4.889E+03 5.116E+03 2.045E+02 1.674E+02 3.670E+01 1.455E+01 1.975E+01 7.886E+00 1.601E+00 8.402E-01 4.664E-01 2.690E-01
3.750E-02 4.389E+03 4.423E+03 4.644E+03 1.975E+02 1.652E+02 3.613E+01 1.554E+01 1.868E+01 8.251E+00 1.451E+00 7.675E-01 3.453E-01 2.042E-01
6.250E-02 3.821E+03 3.847E+03 4.022E+03 1.840E+02 1.532E+02 3.498E+01 1.526E+01 1.734E+01 7.879E+00 1.424E+00 6.827E-01 3.192E-01 2.076E-01
8.750E-02 3.291E+03 3.332E+03 3.474E+03 1.657E+02 1.405E+02 3.277E+01 1.484E+01 1.623E+01 7.868E+00 1.094E+00 6.560E-01 3.401E-01 1.955E-01
1.125E-01 2.841E+03 2.881E+03 2.984E+03 1.506E+02 1.280E+02 3.119E+01 1.436E+01 1.514E+01 7.502E+00 9.582E-01 6.131E-01 2.760E-01 1.683E-01
1.375E-01 2.443E+03 2.462E+03 2.575E+03 1.355E+02 1.169E+02 2.922E+01 1.412E+01 1.371E+01 6.921E+00 9.557E-01 5.661E-01 2.362E-01 1.342E-01
1.625E-01 2.120E+03 2.145E+03 2.236E+03 1.223E+02 1.045E+02 2.740E+01 1.361E+01 1.253E+01 6.333E+00 8.293E-01 5.014E-01 1.908E-01 1.308E-01
1.875E-01 1.831E+03 1.846E+03 1.914E+03 1.091E+02 9.509E+01 2.613E+01 1.272E+01 1.140E+01 6.315E+00 7.397E-01 4.416E-01 2.342E-01 1.312E-01
2.125E-01 1.579E+03 1.588E+03 1.660E+03 9.803E+01 8.512E+01 2.503E+01 1.226E+01 1.075E+01 5.632E+00 6.263E-01 3.891E-01 1.663E-01 1.151E-01
2.375E-01 1.368E+03 1.381E+03 1.434E+03 8.663E+01 7.735E+01 2.232E+01 1.142E+01 9.618E+00 5.185E+00 6.346E-01 3.251E-01 1.343E-01 9.034E-02
2.625E-01 1.184E+03 1.193E+03 1.241E+03 7.765E+01 6.882E+01 2.157E+01 1.096E+01 8.933E+00 4.967E+00 5.239E-01 3.484E-01 1.031E-01 8.041E-02
2.875E-01 1.032E+03 1.040E+03 1.075E+03 6.837E+01 6.208E+01 1.977E+01 1.028E+01 8.860E+00 4.528E+00 5.385E-01 3.226E-01 9.972E-01 4.596E-02
3.125E-01 8.954E+02 9.064E+02 9.355E+02 6.064E+01 5.591E+01 1.858E+01 9.004E+00 7.324E+00 4.243E+00 4.127E-01 2.351E-01 6.974E-02 5.770E-02
3.375E-01 7.772E+02 7.829E+02 8.134E+02 5.390E+01 4.869E+01 1.707E+01 8.464E+00 6.604E+00 3.812E+00 3.523E-01 2.759E-01 8.508E-02 5.363E-02
3.625E-01 6.797E+02 6.843E+02 7.046E+02 4.836E+01 4.331E+01 1.566E+01 7.904E+00 5.862E+00 3.557E+00 3.567E-01 2.014E-01 8.004E-02 4.451E-02
3.875E-01 5.914E+02 5.967E+02 6.141E+02 4.301E+01 3.862E+01 1.428E+01 7.168E+00 5.551E+00 3.184E+00 2.821E-01 1.913E-01 7.116E-02 3.557E-02
4.125E-01 5.151E+02 5.225E+02 5.357E+02 3.827E+01 3.545E+01 1.350E+01 6.571E+00 4.826E+00 2.687E+00 2.380E-01 1.885E-01 6.249E-02 2.012E-02
4.375E-01 4.521E+02 4.555E+02 4.693E+02 3.421E+01 3.153E+01 1.210E+01 6.274E+00 4.769E+00 2.686E+00 2.207E-01 1.022E-01 4.631E-02 3.319E-02
4.625E-01 3.913E+02 3.993E+02 4.090E+02 3.090E+01 2.790E+01 1.145E+01 5.686E+00 4.041E+00 2.404E+00 1.992E-01 1.397E-01 2.670E-02 1.971E-02
4.875E-01 3.451E+02 3.471E+02 3.604E+02 2.630E+01 2.525E+01 1.027E+01 4.860E+00 3.813E+00 2.247E+00 1.807E-01 1.174E-01 3.393E-02 2.602E-02
5.125E-01 3.032E+02 3.063E+02 3.153E+02 2.397E+01 2.193E+01 9.604E+00 4.502E+00 3.465E+00 1.987E+00 1.604E-01 1.025E-01 2.982E-02 3.382E-02
5.375E-01 2.674E+02 2.679E+02 2.774E+02 2.145E+01 2.018E+01 8.735E+00 4.111E+00 3.198E+00 1.817E+00 1.340E-01 7.911E-02 2.395E-02 1.116E-02
5.625E-01 2.377E+02 2.376E+02 2.409E+02 1.871E+01 1.795E+01 8.022E+00 3.635E+00 2.731E+00 1.673E+00 1.236E-01 7.372E-02 3.279E-02 9.474E-03
5.875E-01 2.073E+02 2.101E+02 2.139E+02 1.672E+01 1.640E+01 7.603E+00 3.413E+00 2.516E+00 1.503E+00 1.155E-01 7.489E-02 2.522E-02 1.407E-02
6.125E-01 1.817E+02 1.844E+02 1.899E+02 1.466E+01 1.410E+01 6.771E+00 3.088E+00 2.266E+00 1.382E+00 1.267E-01 6.758E-02 2.138E-02 1.704E-02
6.375E-01 1.599E+02 1.599E+02 1.669E+02 1.357E+01 1.315E+01 6.036E+00 2.682E+00 2.210E+00 1.133E+00 9.382E-02 6.880E-02 8.813E-03 7.672E-03
6.625E-01 1.404E+02 1.423E+02 1.469E+02 1.183E+01 1.146E+01 5.601E+00 2.577E+00 1.952E+00 1.057E+00 6.999E-02 5.146E-02 1.744E-02 4.560E-03
6.875E-01 1.242E+02 1.254E+02 1.315E+02 1.080E+01 1.017E+01 5.021E+00 2.126E+00 1.657E+00 9.164E-01 8.945E-02 5.692E-02 2.588E-02 9.036E-03
7.125E-01 1.103E+02 1.115E+02 1.161E+02 9.532E+00 9.161E+00 4.674E+00 2.050E+00 1.583E+00 9.395E-01 7.830E-02 4.016E-02 1.366E-02 8.953E-03
7.375E-01 9.905E+01 9.821E+01 1.026E+02 8.680E+00 8.119E+00 4.283E+00 1.822E+00 1.346E+00 7.621E-01 5.752E-02 3.967E-02 1.521E-02 4.436E-03
7.625E-01 8.613E+01 8.786E+01 9.138E+01 7.393E+00 7.422E+00 3.883E+00 1.748E+00 1.222E+00 7.368E-01 4.311E-02 2.939E-02 1.338E-02 8.792E-03
7.875E-01 7.688E+01 7.796E+01 8.045E+01 6.944E+00 6.798E+00 3.522E+00 1.390E+00 1.123E+00 6.437E-01 5.034E-02 3.098E-02 6.621E-03 5.809E-03
8.125E-01 6.851E+01 6.970E+01 7.157E+01 6.263E+00 5.933E+00 3.212E+00 1.351E+00 1.074E+00 6.290E-01 4.401E-02 1.913E-03 8.192E-03 2.879E-03
8.375E-01 6.031E+01 6.143E+01 6.382E+01 5.411E+00 5.381E+00 2.822E+00 1.229E+00 9.211E-01 5.168E-01 5.295E-02 2.080E-02 3.244E-03 4.280E-03
8.625E-01 5.490E+01 5.507E+01 5.657E+01 5.123E+00 4.865E+00 2.602E+00 1.121E+00 8.354E-01 4.794E-02 2.056E-02 9.637E-03 4.243E-03
8.875E-01 4.840E+01 4.853E+01 5.078E+01 4.370E+00 4.261E+00 2.556E+00 1.099E+00 7.782E-01 4.755E-01 3.697E-02 2.033E-02 0.000E+00 2.805E-03
9.125E-01 4.284E+01 4.269E+01 4.505E+01 3.812E+00 4.014E+00 2.105E+00 9.525E-01 7.004E-01 4.616E-01 2.924E-02 1.462E-02 3.150E-03 1.390E-03
9.375E-01 3.858E+01 3.825E+01 4.002E+01 3.595E+00 3.467E+00 1.980E+00 7.836E-01 6.641E-01 3.727E-01 2.349E-02 2.530E-02 0.000E+00 2.757E-03
9.625E-01 3.459E+01 3.467E+01 3.577E+01 3.189E+00 3.130E+00 1.797E+00 7.218E-01 5.543E-01 3.584E-01 3.396E-02 1.251E-02 4.636E-03 1.367E-03
9.875E-01 3.092E+01 3.112E+01 3.226E+01 2.965E+00 2.792E+00 1.681E+00 6.913E-01 5.767E-01 3.561E-01 2.122E-02 1.061E-02 7.653E-03 4.067E-03
1.012E+00 2.774E+01 2.830E+01 2.861E+01 2.724E+00 2.664E+00 1.442E+00 5.301E-01 4.820E-01 2.372E-01 2.973E-02 8.745E-03 3.033E-03 1.344E-03
1.038E+00 2.449E+01 2.449E+01 2.598E+01 2.371E+00 2.294E+00 1.298E+00 5.049E-01 4.404E-01 2.174E-01 1.903E-02 1.211E-02 6.010E-03 0.000E+00
1.062E+00 2.186E+01 2.242E+01 2.281E+01 2.145E+00 2.037E+00 1.270E+00 4.884E-01 4.186E-01 2.112E-01 1.541E-02 6.849E-03 4.466E-03 0.000E+00
1.087E+00 2.000E+01 2.008E+01 2.070E+01 1.871E+00 1.853E+00 1.089E+00 4.482E-01 3.750E-01 1.847E-01 2.033E-02 1.017E-02 4.426E-03 2.624E-03
1.113E+00 1.769E+01 1.803E+01 1.827E+01 1.645E+00 1.716E+00 1.080E+00 4.129E-01 3.635E-01 1.553E-01 1.174E-02 3.354E-03 1.462E-03 0.000E+00
1.137E+00 1.588E+01 1.625E+01 1.633E+01 1.632E+00 1.552E+00 8.552E-01 3.589E-01 3.197E-01 1.427E-01 1.328E-02 4.980E-03 0.000E+00 0.000E+00
1.163E+00 1.416E+01 1.442E+01 1.510E+01 1.457E+00 1.364E+00 7.907E-01 2.946E-01 2.537E-01 1.197E-01 9.859E-03 0.000E+00 2.872E-03 0.000E+00
1.188E+00 1.253E+01 1.262E+01 1.340E+01 1.240E+00 1.278E+00 7.757E-01 2.662E-01 2.598E-01 1.325E-01 3.253E-03 4.880E-03 0.000E+00 1.271E-03
1.213E+00 1.145E+01 1.149E+01 1.230E+01 1.181E+00 1.145E+00 7.420E-01 2.423E-01 2.308E-01 1.119E-01 6.442E-03 1.611E-03 0.000E+00 1.261E-03
1.238E+00 1.036E+01 1.039E+01 1.086E+01 1.032E+00 9.522E-01 6.699E-01 2.470E-01 1.816E-01 1.003E-01 7.974E-03 0.000E+00 1.399E-03 1.251E-03
1.262E+00 9.284E+00 9.394E+00 9.650E+00 9.803E-01 8.853E-01 5.365E-01 1.979E-01 1.335E-01 6.317E-03 4.738E-03 0.000E+00 1.242E-03
1.288E+00 8.159E+00 8.150E+00 9.064E+00 7.952E-01 8.158E-01 5.396E-01 2.085E-01 1.524E-01 8.130E-02 4.693E-03 1.564E-03 0.000E+00 0.000E+00
1.312E+00 7.538E+00 7.732E+00 8.302E+00 7.797E-01 7.639E-01 4.685E-01 1.682E-01 1.408E-01 7.376E-02 3.099E-03 1.549E-03 1.364E-03 0.000E+00
```

Au+Au  $E_{CM} = 200A$  GeV:

```
! m_t-m0 , 1/mt dN/dmt(pi+ pi- pi0 K+ K- P aP L+SO a(L+SO) Xi- aXi- Om aOm)
1.250E-02 5.014E+03 5.075E+03 5.311E+03 2.100E+02 1.726E+02 2.996E+01 1.546E+01 1.695E+01 8.409E+00 1.446E+00 8.370E-01 4.543E-01 2.881E-01
3.750E-02 4.617E+03 4.635E+03 4.872E+03 2.045E+02 1.736E+02 3.067E+01 1.645E+01 1.635E+01 8.958E+00 1.349E+00 8.087E-01 4.148E-01 2.513E-01
6.250E-02 4.031E+03 4.078E+03 4.290E+03 1.908E+02 1.643E+02 2.990E+01 1.631E+01 1.593E+01 8.940E+00 1.246E+00 8.160E-01 3.689E-01 2.133E-01
8.750E-02 3.526E+03 3.550E+03 3.722E+03 1.796E+02 1.537E+02 2.918E+01 1.656E+01 1.530E+01 8.575E+00 1.131E+00 6.535E-01 3.317E-01 2.092E-01
1.125E-01 3.057E+03 3.081E+03 3.231E+03 1.628E+02 1.407E+02 2.724E+01 1.612E+01 1.394E+01 8.330E+00 1.121E+00 6.966E-01 3.150E-01 1.889E-01
1.375E-01 2.655E+03 2.662E+03 2.797E+03 1.490E+02 1.284E+02 2.652E+01 1.591E+01 1.288E+01 7.698E+00 1.054E+00 6.072E-01 2.222E-01 1.941E-01
1.625E-01 2.299E+03 2.303E+03 2.420E+03 1.321E+02 1.173E+02 2.508E+01 1.539E+01 1.208E+01 7.693E+00 8.720E-01 5.530E-01 2.286E-01 1.387E-01
1.875E-01 2.005E+03 2.016E+03 2.089E+03 1.203E+02 1.081E+02 2.295E+01 1.442E+01 1.083E+01 6.909E+00 7.999E-01 4.978E-01 2.372E-01 1.162E-01
2.125E-01 1.738E+03 1.750E+03 1.821E+03 1.078E+02 9.636E+01 2.185E+01 1.350E+01 1.018E+01 6.444E+00 6.793E-01 4.415E-01 1.789E-01 1.115E-01
2.375E-01 1.509E+03 1.525E+03 1.570E+03 9.575E+01 8.578E+01 2.039E+01 1.325E+01 9.551E+00 6.021E+00 5.987E-01 4.344E-01 1.494E-01 9.663E-02
2.625E-01 1.313E+03 1.321E+03 1.366E+03 8.724E+01 7.906E+01 1.957E+01 1.225E+01 8.437E+00 5.874E+00 5.673E-01 3.563E-01 1.274E-01 7.517E-02
2.875E-01 1.144E+03 1.156E+03 1.196E+03 7.679E+01 7.033E+01 1.836E+01 1.144E+01 8.092E+00 5.671E+00 4.452E-01 3.372E-01 1.236E-01 5.138E-02
3.125E-01 9.950E+02 1.004E+03 1.042E+03 6.945E+01 6.255E+01 1.704E+01 1.057E+01 7.143E+00 4.957E+00 4.489E-01 3.028E-01 9.586E-02 6.534E-02
3.375E-01 8.732E+02 8.758E+02 9.047E+02 6.193E+01 5.704E+01 1.639E+01 9.579E+00 6.639E+00 4.697E+00 4.552E-01 2.747E-01 1.119E-01 6.471E-02
3.625E-01 7.654E+02 7.676E+02 7.912E+02 5.522E+01 5.119E+01 1.515E+01 9.348E+00 5.907E+00 4.296E+00 3.660E-01 2.191E-01 8.925E-02 4.930E-02
3.875E-01 6.683E+02 6.692E+02 6.916E+02 4.972E+01 4.575E+01 1.401E+01 8.268E+00 5.702E+00 3.931E+00 3.276E-01 2.362E-01 8.397E-02 5.535E-02
4.125E-01 5.820E+02 5.895E+02 6.079E+02 4.535E+01 4.095E+01 1.295E+01 7.798E+00 5.275E+00 3.688E+00 2.828E-01 1.927E-01 7.052E-02 5.484E-02
4.375E-01 5.122E+02 5.170E+02 5.346E+02 3.839E+01 3.668E+01 1.186E+01 7.173E+00 4.898E+00 3.295E+00 2.664E-01 1.628E-01 5.329E-02 4.314E-02
4.625E-01 4.487E+02 4.541E+02 4.668E+02 3.498E+01 3.325E+01 1.111E+01 6.693E+00 4.407E+00 3.024E+00 2.043E-01 1.727E-01 4.456E-02 2.533E-02
4.875E-01 3.936E+02 3.971E+02 4.131E+02 3.124E+01 2.944E+01 1.061E+01 6.205E+00 3.972E+00 2.683E+00 1.943E-01 1.559E-01 3.604E-02 3.138E-02
5.125E-01 3.465E+02 3.479E+02 3.636E+02 2.829E+01 2.777E+01 9.818E+00 5.335E+00 3.459E+00 2.419E+00 1.632E-01 1.301E-01 4.750E-02 2.954E-02
5.375E-01 3.086E+02 3.094E+02 3.165E+02 2.573E+01 2.401E+01 8.588E+00 5.002E+00 3.313E+00 2.283E+00 1.540E-01 9.802E-02 4.696E-02 2.620E-02
5.625E-01 2.717E+02 2.718E+02 2.833E+02 2.191E+01 2.168E+01 8.197E+00 4.633E+00 2.954E+00 2.045E+00 1.520E-01 9.671E-02 2.515E-02 1.527E-02
5.875E-01 2.400E+02 2.411E+02 2.463E+02 1.953E+01 1.956E+01 7.632E+00 4.376E+00 2.624E+00 1.873E+00 1.023E-01 1.204E-01 4.210E-02 9.084E-03
6.125E-01 2.110E+02 2.126E+02 2.181E+02 1.761E+01 1.732E+01 6.790E+00 3.996E+00 2.406E+00 1.656E+00 1.368E-01 8.972E-02 1.892E-02 1.951E-02
6.375E-01 1.864E+02 1.881E+02 1.946E+02 1.622E+01 1.520E+01 6.287E+00 3.672E+00 2.360E+00 1.632E+00 1.085E-01 5.536E-02 1.498E-02 1.934E-02
6.625E-01 1.651E+02 1.665E+02 1.726E+02 1.419E+01 1.409E+01 5.870E+00 3.266E+00 2.207E+00 1.395E+00 9.620E-02 4.154E-02 1.111E-02 7.376E-03
6.875E-01 1.475E+02 1.490E+02 1.528E+02 1.305E+01 1.284E+01 5.452E+00 2.779E+00 1.848E+00 1.208E+00 8.420E-02 6.045E-02 1.099E-02 1.609E-02
7.125E-01 1.312E+02 1.319E+02 1.361E+02 1.176E+01 1.180E+01 5.006E+00 2.769E+00 1.582E+00 1.175E+00 7.677E-02 3.625E-02 1.632E-02 7.252E-03
7.375E-01 1.171E+02 1.154E+02 1.197E+02 1.049E+01 1.042E+01 4.420E+00 2.487E+00 1.509E+00 1.071E+00 5.266E-02 3.581E-02 1.256E-02 5.754E-03
7.625E-01 1.027E+02 1.037E+02 1.078E+02 9.369E+00 9.311E+00 3.956E+00 2.125E+00 1.388E+00 9.620E-01 3.954E-02 4.786E-02 1.421E-02 9.986E-03
7.875E-01 9.156E+01 9.261E+01 9.527E+01 8.232E+00 8.411E+00 3.758E+00 2.020E+00 1.338E+00 8.881E-01 6.580E-02 2.673E-02 8.789E-03 8.489E-03
8.125E-01 8.043E+01 8.277E+01 8.548E+01 7.591E+00 7.591E+00 3.352E+00 1.951E+00 1.177E+00 7.555E-01 3.861E-02 4.268E-02 1.044E-02 5.614E-03
8.375E-01 7.315E+01 7.416E+01 7.705E+01 6.861E+00 6.806E+00 3.095E+00 1.658E+00 1.131E+00 7.923E-01 3.816E-02 3.816E-02 1.206E-02 1.392E-03
8.625E-01 6.395E+01 6.570E+01 6.783E+01 6.212E+00 6.272E+00 2.704E+00 1.443E+00 8.981E-01 6.643E-01 3.574E-02 3.772E-02 6.823E-03 5.524E-03
8.875E-01 5.857E+01 5.890E+01 6.055E+01 5.639E+00 5.627E+00 2.473E+00 1.305E+00 9.646E-01 5.826E-01 3.141E-02 2.748E-02 1.351E-02 6.850E-03
9.125E-01 5.207E+01 5.248E+01 5.386E+01 5.189E+00 5.038E+00 2.285E+00 1.093E+00 8.547E-01 5.136E-01 3.494E-02 2.523E-02 0.000E+00 0.000E+00
9.375E-01 4.662E+01 4.612E+01 4.814E+01 4.606E+00 4.542E+00 2.151E+00 1.173E+00 8.000E-01 5.390E-01 2.495E-02 9.597E-03 6.627E-03 1.349E-03
9.625E-01 4.150E+01 4.169E+01 4.341E+01 4.019E+00 4.046E+00 1.970E+00 9.554E-01 6.968E-01 4.618E-01 1.898E-02 1.329E-02 4.923E-03 4.015E-03
9.875E-01 3.693E+01 3.733E+01 3.961E+01 3.546E+00 3.642E+00 1.697E+00 9.992E-01 6.330E-01 4.152E-01 2.629E-02 1.878E-02 4.877E-03 1.328E-03
1.012E+00 3.304E+01 3.414E+01 3.518E+01 3.343E+00 3.386E+00 1.649E+00 8.113E-01 5.748E-01 4.103E-01 1.672E-02 1.486E-02 8.053E-03 1.318E-03
1.038E+00 2.968E+01 2.975E+01 3.194E+01 2.987E+00 3.012E+00 1.475E+00 7.288E-01 4.979E-01 3.674E-01 2.573E-02 1.286E-02 3.191E-03 3.924E-03
1.062E+00 2.683E+01 2.743E+01 2.808E+01 2.678E+00 2.761E+00 1.303E+00 6.419E-01 4.545E-01 3.195E-01 1.818E-02 5.455E-03 3.162E-03 3.894E-03
1.087E+00 2.455E+01 2.452E+01 2.563E+01 2.441E+00 2.488E+00 1.287E+00 5.614E-01 4.120E-01 2.590E-01 1.260E-02 1.260E-02 3.133E-03 3.865E-03
1.113E+00 2.154E+01 2.178E+01 2.276E+01 2.285E+00 2.468E+00 1.168E+00 5.756E-01 3.337E-01 2.600E-01 1.959E-02 1.425E-02 1.553E-03 0.000E+00
1.137E+00 1.970E+01 1.992E+01 2.088E+01 1.958E+00 2.078E+00 1.012E+00 4.583E-01 3.684E-01 2.571E-01 7.051E-03 1.763E-03 0.000E+00 1.269E-03
1.163E+00 1.765E+01 1.812E+01 1.849E+01 1.730E+00 1.845E+00 9.653E-01 4.899E-01 3.871E-01 1.992E-01 1.222E-02 1.222E-02 4.576E-03 0.000E+00
1.188E+00 1.572E+01 1.627E+01 1.654E+01 1.566E+00 1.679E+00 8.930E-01 4.048E-01 3.285E-01 1.971E-01 1.209E-02 8.638E-03 3.024E-03 2.502E-03
1.213E+00 1.434E+01 1.478E+01 1.531E+01 1.507E+00 1.611E+00 7.318E-01 3.498E-01 2.525E-01 1.300E-01 1.368E-02 1.539E-02 1.499E-03 3.726E-03
1.238E+00 1.275E+01 1.343E+01 1.340E+01 1.366E+00 1.468E+00 7.731E-01 3.537E-01 2.756E-01 1.488E-01 8.469E-03 6.775E-03 0.000E+00 0.000E+00
1.262E+00 1.127E+01 1.218E+01 1.240E+01 1.366E+00 1.137E+00 6.562E-01 3.124E-01 1.945E-01 1.745E-01 1.174E-02 6.709E-03 1.473E-03 1.225E-03
1.288E+00 1.047E+01 1.072E+01 1.112E+01 1.048E+00 1.099E+00 5.945E-01 2.603E-01 1.871E-01 1.367E-01 8.306E-03 1.661E-03 0.000E+00 0.000E+00
1.312E+00 9.627E+00 9.654E+00 1.017E+01 1.089E+00 1.127E+00 5.437E-01 2.613E-01 1.656E-01 1.193E-01 6.582E-03 6.582E-03 2.897E-03 3.622E-03
```





Au+Au  $E_{\text{lab}} = 6A$  GeV:

i	y	dN/dy	(pi+ pi- pi0 K+ K- P aP aL S0 a(L+S0) Xi- aXi- Om aOm)
-3.	3.75E+00	3.600E-03	2.800E-03 1.600E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-3.	1.25E+00	1.480E-02	1.720E-02 1.800E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-2.	875E+00	6.560E-02	9.480E-02 8.320E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-2.	625E+00	2.944E-01	3.460E-01 3.180E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-2.	375E+00	8.484E-01	1.033E+00 9.804E-01 1.600E-03 0.000E+00 8.000E-04 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-2.	125E+00	2.144E+00	2.623E+00 2.501E+00 8.400E-03 8.000E-04 2.440E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-1.	875E+00	4.484E+00	5.408E+00 5.233E+00 8.000E-02 6.400E-03 5.324E-01 0.000E+00 3.600E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-1.	625E+00	8.108E+00	9.942E+00 9.618E+00 3.112E-01 3.560E-02 6.160E+00 0.000E+00 5.160E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-1.	375E+00	1.334E+01	1.627E+01 1.556E+01 9.188E-01 2.192E-01 2.752E+01 4.000E-04 1.488E-01 0.000E+00 4.000E-04 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-1.	125E+00	1.957E+01	2.392E+01 2.269E+01 2.118E+00 2.596E-01 3.515E+01 0.000E+00 1.508E+00 0.000E+00 2.400E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-8.	750E-01	2.628E+01	3.222E+01 3.011E+01 3.699E+00 4.600E-01 4.871E+01 4.000E-04 3.482E+00 0.000E+00 1.360E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
-6.	250E-01	3.213E+01	3.937E+01 3.651E+01 5.331E+00 6.924E-01 6.370E+01 8.000E-04 6.048E+00 0.000E+00 2.800E-02 0.000E+00 4.000E-04 0.000E+00 0.000E+00 0.000E+00
-3.	750E-01	3.667E+01	4.534E+01 4.160E+01 6.370E+00 8.224E-01 7.517E+01 8.000E-04 8.123E+00 8.000E-04 4.680E-02 0.000E+00 1.200E-03 0.000E+00 0.000E+00 0.000E+00
-1.	250E-01	3.913E+01	4.853E+01 4.450E+01 7.003E+00 9.504E-01 8.117E+01 4.000E-04 9.568E+00 0.000E+00 5.320E-02 0.000E+00 4.000E-03 0.000E+00 0.000E+00 0.000E+00
1.	250E-01	3.927E+01	4.856E+01 4.447E+01 6.883E+00 9.432E-01 8.111E+01 0.000E+00 9.463E+00 0.000E+00 5.640E-02 0.000E+00 2.000E-03 0.000E+00 0.000E+00 0.000E+00
3.	750E-01	3.657E+01	4.520E+01 4.185E+01 6.320E+00 8.242E-01 7.509E+01 4.000E-04 8.266E+00 4.000E-04 5.200E-02 0.000E+00 4.000E-04 0.000E+00 0.000E+00 0.000E+00
6.	250E-01	3.203E+01	3.960E+01 3.650E+01 5.338E+00 6.748E-01 6.354E+01 8.000E-04 5.930E+00 0.000E+00 2.840E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
8.	750E-01	2.609E+01	3.218E+01 2.987E+01 3.656E+00 4.728E-01 4.851E+01 4.000E-04 3.467E+00 0.000E+00 1.360E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.	125E+00	1.940E+01	2.396E+01 2.272E+01 2.122E+00 2.548E-01 3.507E+01 4.000E-04 1.465E+00 0.000E+00 3.200E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.	375E+00	1.339E+01	1.616E+01 1.552E+01 9.504E-01 1.096E-01 2.753E+01 0.000E+00 4.252E-01 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.	625E+00	8.137E+00	9.955E+00 9.501E+00 3.140E-01 4.040E-02 6.107E+00 0.000E+00 4.600E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
1.	875E+00	4.468E+00	5.386E+00 5.076E+00 8.760E-02 1.120E-02 5.208E-01 0.000E+00 1.600E-03 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
2.	125E+00	2.142E+00	2.645E+00 2.431E+00 1.160E-02 4.000E-04







Pb+Pb  $E_{\text{lab}} = 30A$  GeV:

[illegible]

Pb+Pb  $E_{\text{lab}} = 40A$  GeV:

[illegible]



[illegible]





Au+Au  $E_{\text{CM}} = 62.5A$  GeV:

	xi	xi-1	xi-2	xi-3	xi-4	xi-5	xi-6	xi-7	xi-8	xi-9	xi-10	xi-11	xi-12	xi-13	xi-14	xi-15	xi-16	xi-17	xi-18	xi-19	xi-20	xi-21	xi-22	xi-23	xi-24	xi-25	xi-26	xi-27	xi-28	xi-29	xi-30	xi-31	xi-32	xi-33	xi-34	xi-35	xi-36	xi-37	xi-38	xi-39	xi-40	xi-41	xi-42	xi-43	xi-44	xi-45	xi-46	xi-47	xi-48	xi-49	xi-50	xi-51	xi-52	xi-53	xi-54	xi-55	xi-56	xi-57	xi-58	xi-59	xi-60	xi-61	xi-62	xi-63	xi-64	xi-65	xi-66	xi-67	xi-68	xi-69	xi-70	xi-71	xi-72	xi-73	xi-74	xi-75	xi-76	xi-77	xi-78	xi-79	xi-80	xi-81	xi-82	xi-83	xi-84	xi-85	xi-86	xi-87	xi-88	xi-89	xi-90	xi-91	xi-92	xi-93	xi-94	xi-95	xi-96	xi-97	xi-98	xi-99	xi-100	xi-101	xi-102	xi-103	xi-104	xi-105	xi-106	xi-107	xi-108	xi-109	xi-110	xi-111	xi-112	xi-113	xi-114	xi-115	xi-116	xi-117	xi-118	xi-119	xi-120	xi-121	xi-122	xi-123	xi-124	xi-125	xi-126	xi-127	xi-128	xi-129	xi-130	xi-131	xi-132	xi-133	xi-134	xi-135	xi-136	xi-137	xi-138	xi-139	xi-140	xi-141	xi-142	xi-143	xi-144	xi-145	xi-146	xi-147	xi-148	xi-149	xi-150	xi-151	xi-152	xi-153	xi-154	xi-155	xi-156	xi-157	xi-158	xi-159	xi-160	xi-161	xi-162	xi-163	xi-164	xi-165	xi-166	xi-167	xi-168	xi-169	xi-170	xi-171	xi-172	xi-173	xi-174	xi-175	xi-176	xi-177	xi-178	xi-179	xi-180	xi-181	xi-182	xi-183	xi-184	xi-185	xi-186	xi-187	xi-188	xi-189	xi-190	xi-191	xi-192	xi-193	xi-194	xi-195	xi-196	xi-197	xi-198	xi-199	xi-200	xi-201	xi-202	xi-203	xi-204	xi-205	xi-206	xi-207	xi-208	xi-209	xi-210	xi-211	xi-212	xi-213	xi-214	xi-215	xi-216	xi-217	xi-218	xi-219	xi-220	xi-221	xi-222	xi-223	xi-224	xi-225	xi-226	xi-227	xi-228	xi-229	xi-230	xi-231	xi-232	xi-233	xi-234	xi-235	xi-236	xi-237	xi-238	xi-239	xi-240	xi-241	xi-242	xi-243	xi-244	xi-245	xi-246	xi-247	xi-248	xi-249	xi-250	xi-251	xi-252	xi-253	xi-254	xi-255	xi-256	xi-257	xi-258	xi-259	xi-260	xi-261	xi-262	xi-263	xi-264	xi-265	xi-266	xi-267	xi-268	xi-269	xi-270	xi-271	xi-272	xi-273	xi-274	xi-275	xi-276	xi-277	xi-278	xi-279	xi-280	xi-281	xi-282	xi-283	xi-284	xi-285	xi-286	xi-287	xi-288	xi-289	xi-290	xi-291	xi-292	xi-293	xi-294	xi-295	xi-296	xi-297	xi-298	xi-299	xi-300	xi-301	xi-302	xi-303	xi-304	xi-305	xi-306	xi-307	xi-308	xi-309	xi-310	xi-311	xi-312	xi-313	xi-314	xi-315	xi-316	xi-317	xi-318	xi-319	xi-320	xi-321	xi-322	xi-323	xi-324	xi-325	xi-326	xi-327	xi-328	xi-329	xi-330	xi-331	xi-332	xi-333	xi-334	xi-335	xi-336	xi-337	xi-338	xi-339	xi-340	xi-341	xi-342	xi-343	xi-344	xi-345	xi-346	xi-347	xi-348	xi-349	xi-350	xi-351	xi-352	xi-353	xi-354	xi-355	xi-356	xi-357	xi-358	xi-359	xi-360	xi-361	xi-362	xi-363	xi-364	xi-365	xi-366	xi-367	xi-368	xi-369	xi-370	xi-371	xi-372	xi-373	xi-374	xi-375	xi-376	xi-377	xi-378	xi-379	xi-380	xi-381	xi-382	xi-383	xi-384	xi-385	xi-386	xi-387	xi-388	xi-389	xi-390	xi-391	xi-392	xi-393	xi-394	xi-395	xi-396	xi-397	xi-398	xi-399	xi-400	xi-401	xi-402	xi-403	xi-404	xi-405	xi-406	xi-407	xi-408	xi-409	xi-410	xi-411	xi-412	xi-413	xi-414	xi-415	xi-416	xi-417	xi-418	xi-419
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[illegible]